FISH-00950

SERVICE MANUAL

SH021/23

FISHER

MC-705

Audio Component System

(EUROPE)

132 289 40

WM-15748

950

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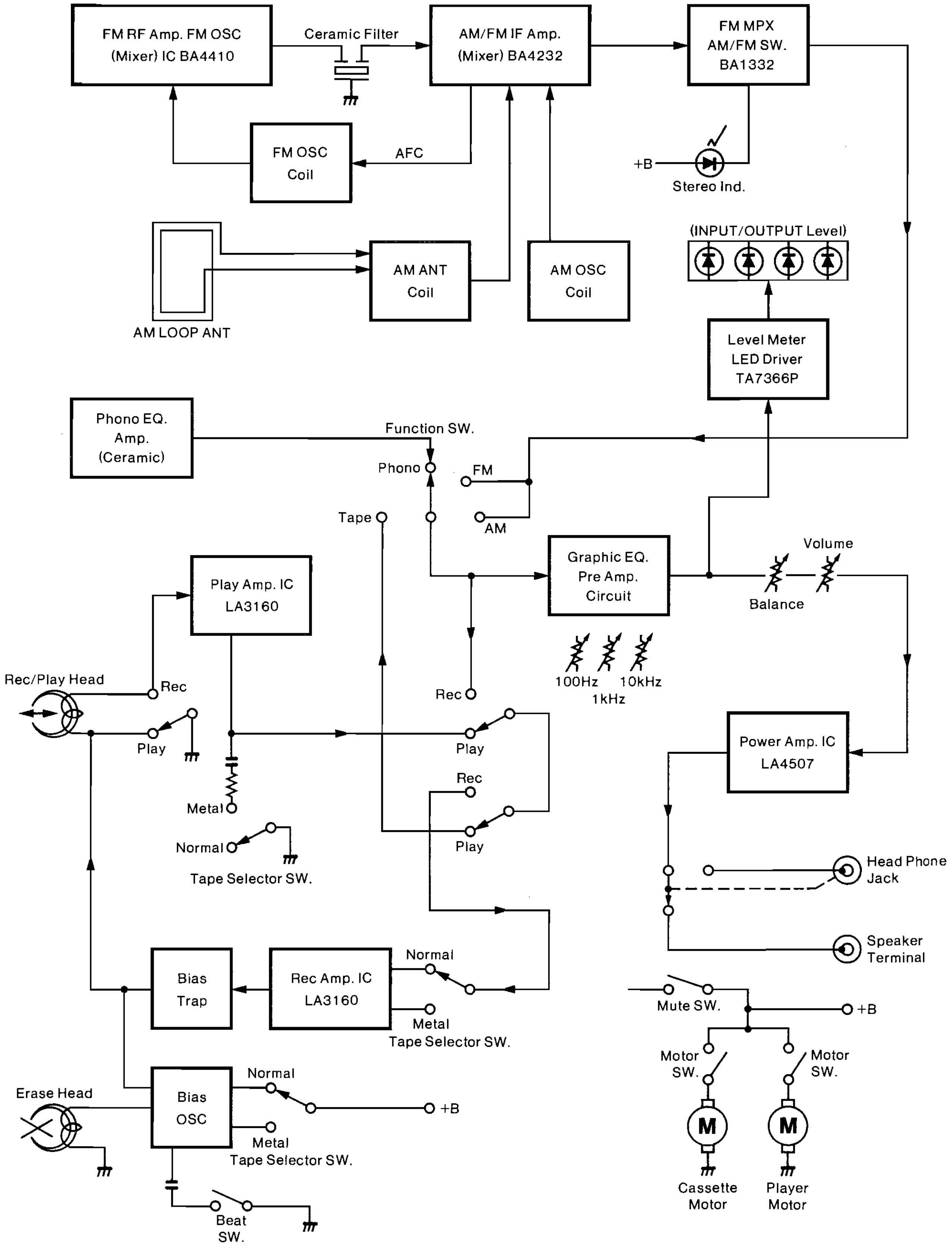
SPECIFICATIONS

AUDIO COMPONENT SYSTEM	MC-705
AMPLIFIER SECTION **Minimum RMS sine wave power per channel at 8 ohms within rated bandwidth at no more than rated T.H.D.**	**3.5 Watts x 2**
Power Bandwidth	**100 Hz – 15 kHz**
Total Harmonic Distortion	**5.0 %**
FM TUNER SECTION Usable Sensitivity	5 μV
Alt. Chennel Selectivity	30 dB
Signal-to-Noise Ratio	70 dB
Stereo Separation at 1 kHz	35 dB
AM TUNER SECTION Usable Sensitivity	500 μV/m
Selectivity	25 dB
Signal-to-Noise Ratio	50 dB
Image Frequency Rejection	40 dB
CASSETTE TAPE DECK SECTION Wow and Flutter (WRMS)	0.08 %
Signal-to-Noise Ratio	50 dB
Channel Separation	50 dB
Frequency Response (Fe_2O_3)	80 Hz – 12.5 kHz
Harmonic Distortion (Fe_2O_3)	2 %
Erase Ratio	60 dB
TURNTABLE SECTION Wow & Flutter (WRMS)	0.2 %
Signal-to-Noise Ratio (DIN)	45 dB
Tracking Force Range	4 ~ 6 g
GENERAL SECTION Power Requirements (50 Hz)	220 V AC
Power Consumption	35 Watts
Dimensions (W x H x D)	400 x 210 x 390 mm
Weight (approx.)	5.4 kg

Because its products are subject to continuous improvement, Fisher Corporation reserves the right to modify product designs and specifications without notice and without incurring any obligation.

FUNCTIONAL BLOCK DIAGRAM


FM RF Amp. FM OSC
(Mixer) IC BA4410
Ceramic Filter
AM/FM IF Amp.
(Mixer) BA4232
FM MPX
AM/FM SW.
BA1332
FM OSC
Coil
AFC
+B
Stereo Ind.
(INPUT/OUTPUT Level)
AM ANT
Coil
AM OSC
Coil
AM LOOP ANT
Level Meter
LED Driver
TA7366P
Phono EQ.
Amp.
(Ceramic)
Function SW.
Phono
FM
Tape
AM
Volume
Graphic EQ.
Pre Amp.
Circuit
Balance
Play Amp. IC
LA3160
Rec/Play Head
Rec
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Rec
100Hz
10kHz
1kHz
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Play
Tape Selector SW.
Power Amp. IC
LA4507
Head Phone
Jack
Speaker
Terminal
Bias
Trap
Rec Amp. IC
LA3160
Normal
Metal
Tape Selector SW.
Mute SW.
+B
Motor
SW.
Motor
SW.
Erase Head
Bias
OSC
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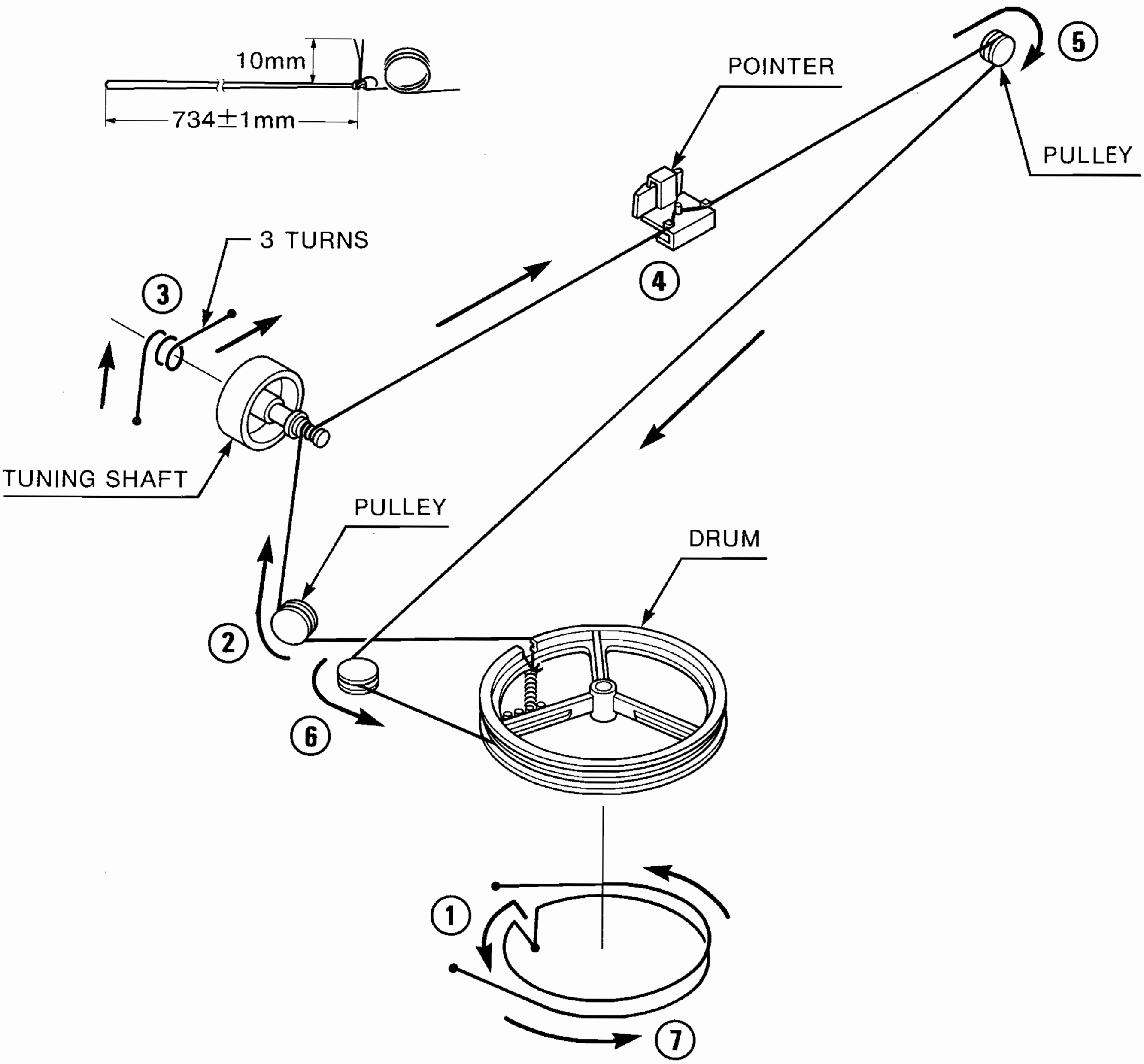
Beat
SW.
Cassette
Motor
Player
Motor

DIAL CORD STRINGING


10mm
734±1mm
POINTER
⑤
PULLEY
3 TURNS
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TUNING SHAFT
PULLEY
DRUM
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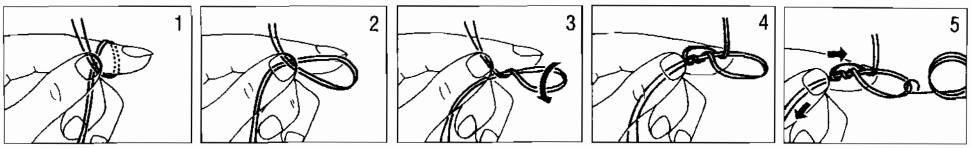
DIAL CORD KNOTTING

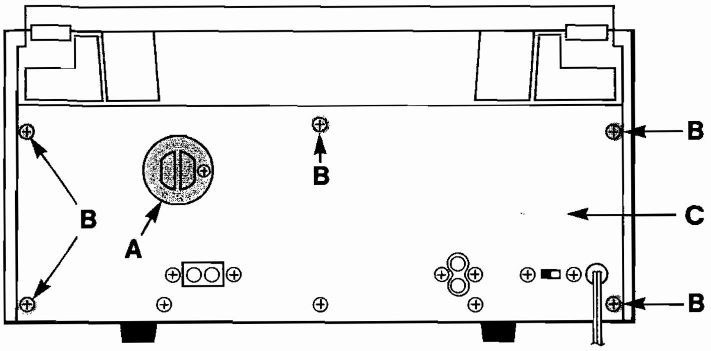


NOTE: Check to see that the dial cord is correctly strung by turning the dial.

DISASSEMBLY INSTRUCTIONS

A. REMOVAL OF PLAYER (TURNTABLE)

1. Cover Decorate **A** located on the back of Cabinet and prize Turntable Clamper through the hole. (Fig. 1)
2. Lift the rear of Turntable and disconnect the Connector with the shield wires and the of the Power supply cord for the Turntable motor.
3. Remove Turntable from Cabinet by pulling it backward.

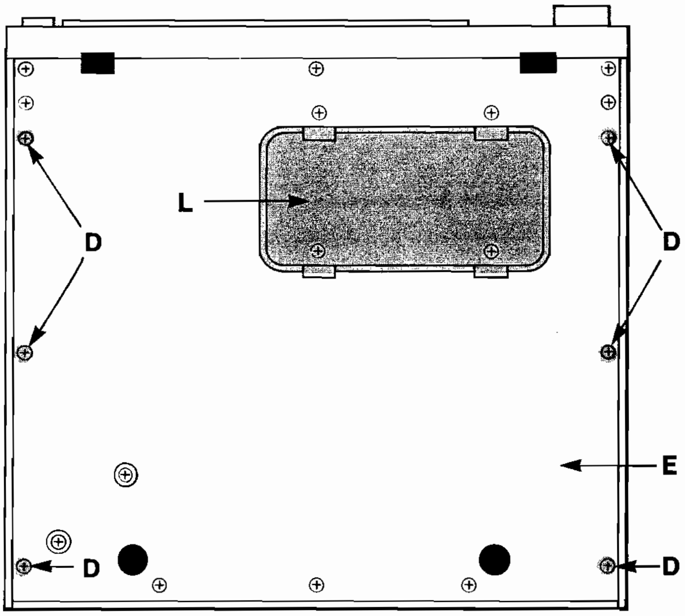


(REAR VIEW)

Fig. 1

B. REMOVAL OF CABINET

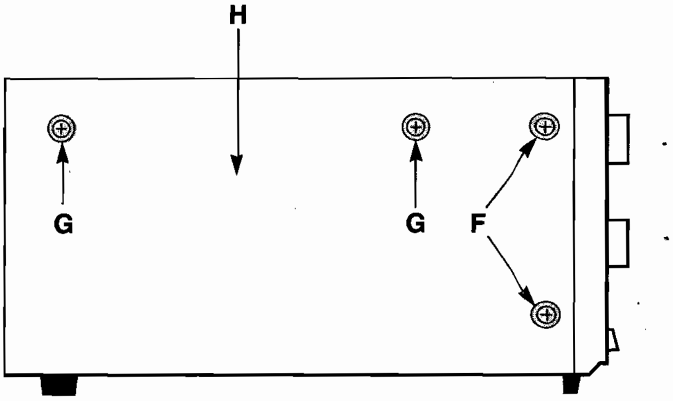
1. Remove the screws **B** fastening Cabinet Rear Panel **C**.(Fig. 1)
2. Remove the screws **D** fastening Cabinet Bottom Plate **E**. (Fig. 2)



(BOTTOM VIEW)

Fig. 2

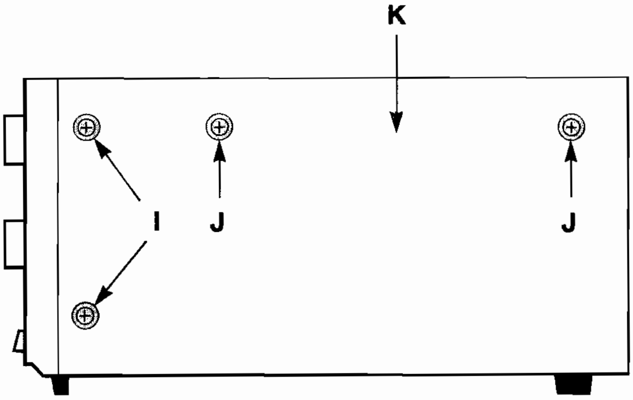
3. Remove the screws **F** and **G** fastening the left side of Cabinet **H**. (Fig. 3)



(LEFT SIDE VIEW)

Fig. 3

4. Remove the screw **I** and **J** fastening the right side of Cabinet **K**.
5. Lift the front panel side of Cabinet in the direction of the arrow and pull it backward. Then, Cabinet Top will be separated from the Unit. (Fig. 4)



(RIGHT SIDE VIEW)

Fig. 4

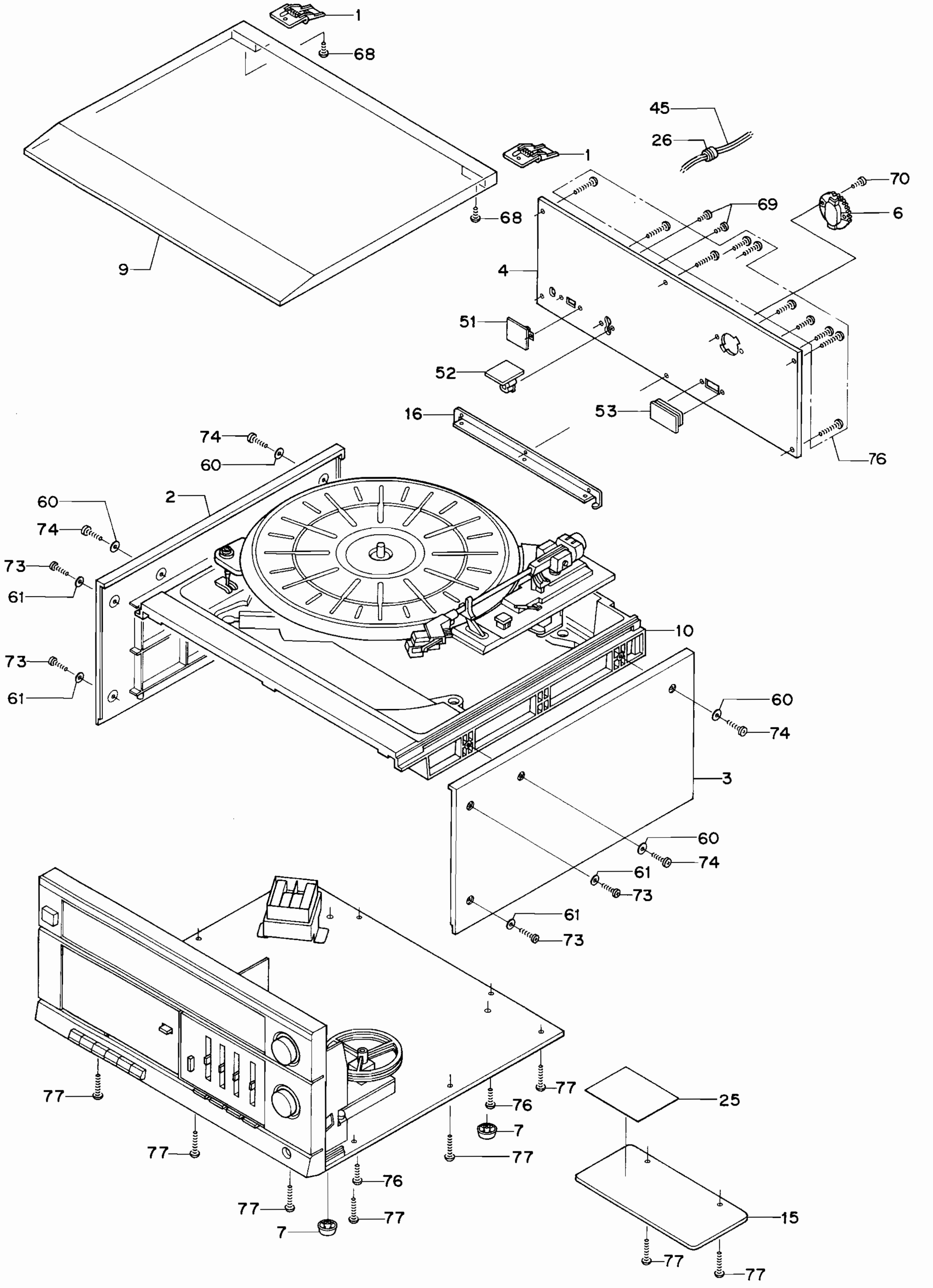
ATTENTION:

When removing the cabinet on the right side, be careful not to disconnect the lead of the AM Antenna Coil.

C. REPAIR AND ADJUSTMENT OF PRINTED CIRCUIT BOARD

1. The removal of Cabinet Bottom Plate **L** will give an access to the repair or adjustment work of RF/Audio P.C.Board.
   Note: It is not necessary to remove Cabinet.

CABINET & CHASSIS EXPLODED VIEW (1)



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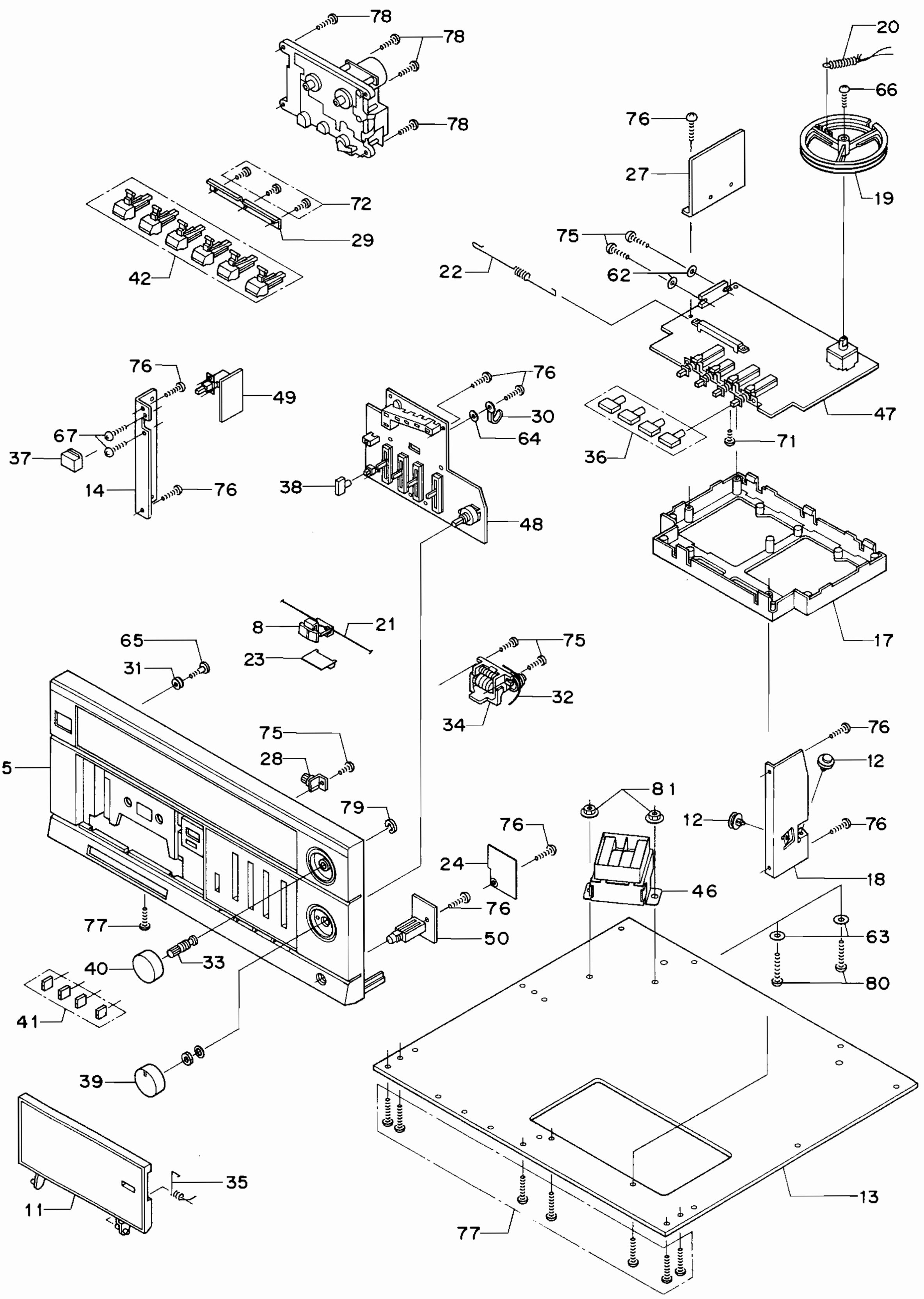
CABINET & CHASSIS EXPLODED VIEW (2) (Continued)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PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	PACKING PARTS LIST		
	131-6-1169-06712	Box Corrugate Exp.	1
	131-6-2119-02031	Bag Polyethylene Exp.	1
	131-6-2119-02360	Bag Polyethylene Exp.	1
	131-6-3009-33891	Pad (Left)	1
	131-6-3009-33901	Pad (Right)	1
	131-6-3009-34820	Pad (Left)	1
	131-6-3009-35830	Pad (Right)	1
	131-6-3069-16350	Patching Sheet	1
	131-6-4159-40900	Notes (Caution)	1
	131-6-4159-41000	Notes	1
	131-6-4559-10900	Manufacturing No.	1
	ACCESSORIES PARTS LIST		
	4-2449-20260	FM Antenna	1
	131-6-2719-10401	Bag Fan	1
	142-6-4119-32737	Explanatory Booklet	1
	CABINET & CHASSIS PARTS LIST		
	131-2-7103-46700	Label	1
	131-6-4559-10900	Manufacturing No.	1
1	131-0-2002-17200	Hinge Assy	2
2	131-2-1101-50700	Cabinet (Left)	1
3	131-2-1101-50800	Cabinet (Right)	1
4	131-2-1102-57000	Rear Cover	1
5	131-0-1016-45100	Panel Decorate Assy	1
	131-2-1203-64000	Panel Control	1
	131-2-1203-63700	Panel Control (Equalizer)	1
	131-2-1203-63900	Panel Control (Tuner)	1
	141-2-1519-24700	Reflector	1
6	131-2-1407-10300	Cover Decorate	1
7	131-2-1801-14600	Leg	2
8	131-2-4101-23400	Pointer	1
9	141-0-1249-36200	Lid Assy	1
	131-2-1107-26401	Lid (Dust Cover)	1
	131-2-1310-22106	Name Plate	1
	131-2-2904-12300	Pad Lid	2
10	141-2-1129-16400	Cabinet Top	1
11	141-0-1249-36400	Lid Cassette Assy	1
	141-2-1249-47900	Lid Cassette	1
	131-2-1203-63800	Panel Control (Cassette)	1
	141-2-1519-46300	Panel Cassette	2
12	131-0-3020-11000	Pully Assy	2
13	131-2-1105-31600	Plate Bottom	1
14	131-2-1116-22700	Frame	1
15	131-2-1410-33200	Cover	1
16	131-2-3202-14900	Metal Reinf	1
17	131-2-3614-27800	Mount PCB	1
18	131-2-4106-25700	Metal Mount Puley	1
19	131-2-4109-11500	Drum	1
20	131-2-4111-00200	Spring Rope	1
21	131-2-4112-10201	Rope Dial	
22	131-2-5101-24100	Spring Record	1
23	131-2-5205-19100	Cushion	1
24	131-2-6103-24200	Cover Shield	1
25	131-2-6103-24300	Cover Shield	1
26	131-2-6111-25400	Bushing	1
27	131-2-6201-35800	Plate Heat Sink	1
28	141-0-5519-08504	Gear Eject Assy	1
29	141-2-2629-05500	Holder Button	1
30	141-2-4729-04100	Lug	1
31	141-2-5519-03300	Roller Dial A	1
32	141-2-5649-08800	Belt Counter	1
33	141-2-7519-58500	Shaft Dial	1
34	141-2-8119-11500	Counter	1
35	141-2-8549-29500	Spring Lid Cassette	1
36	131-2-1601-64503	Knob (Function)	4
37	131-2-1601-86202	Knob (Power Switch)	1
38	131-2-1601-92200	Knob (Tape)	1
39	131-2-1601-92300	Knob (Volume)	1
40	131-2-1601-92400	Knob (Tuning)	1
41	131-2-1601-92500	Knob (Equalizer)	4
42	141-2-1659-24602	Button Select	6
	ELECTRICAL PARTS LIST		
45	⚠ 4-2432-00200	Power Cord	1
46	⚠ 4-2512-23420	Power Trans	1
47	141-0-1939-10123	RF/Audio P.C.B. Assy	1
48	141-0-1939-10131	Graphic Equalizer P.C.B. Assy	1
49	141-0-1939-10143	Power Switch P.C.B. Assy	1
50	141-0-1939-10151	Headphone Jack P.C.B. Assy	1
51	141-0-1939-10161	Beat Switch P.C.B. Assy	1
52	141-0-1939-10171	Speaker Terminal P.C.B. Assy	1
53	141-0-1939-10191	Antenna Terminal P.C.B. Assy	1
	4-1342-00800	Player (FK-102HR-3) **(See Page 17, 18)**	1
	SCREW, WASHER, E RING PARTS LIST		
60	131-2-4203-84504	Washer, 4.5x12x1.0	4
61	131-2-4203-83225	Washer, 3.2x12x0.8	4
62	131-2-4203-83201	Washer, 3.2x10x0.5	2
63	131-2-4203-83224	Washer, 3.2x12x0.8	2
64	131-2-4203-18401	Washer, 3.2x10x1.0	1
65	141-2-4219-14000	Screw, +M2.3x4.0	1
66	101-3-1302-60811	Screw, Pan Hd., +M2.6x8	1
67	101-3-1303-00611	Screw, Pan Hd., +M3.0x6	2
68	101-3-1303-00616	Screw, Pan Hd., +M3.0x6	2
69	101-3-1303-01011	Screw, Pan Hd., +M3.0x10	2
70	103-3-1303-51016	Screw, Pan Hd. Tapping-2, +M3.5x10	1
71	143-3-1303-00611	Screw, Pan Hd. Tapping-B, +M3.0x6	1
72	103-3-1302-60511	Screw, Pan Hd. Tapping-2, +M2.6x5	3
73	143-3-1703-01018	Screw, Bind Hd. Tapping-B, +M3.0x10	4
74	143-3-1704-01418	Screw, Bind Hd. Tapping-B, +M4.0x14	4
75	143-3-1902-60811	Screw, Brazier Hd. Tapping-B, +M2.6x8	5
76	143-3-1903-01011	Screw, Brazier Hd. Tapping-B, +M3.0x10	21
77	143-3-1903-01211	Screw, Brazier Hd. Tapping-B, +M3.0x12	16
78	143-3-1903-01611	Screw, Brazier Hd. Tapping-B, +M3.0x16	4
79	112-3-1304-00040	E Ring, M4.0	1
80	131-2-4201-16705	Screw, Brazier Hd. Tapping-C, +M3.0x16	2
81	131-2-4202-12903	Flanger Nut, M3.0x8 Z	2

NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

CASSETTE DECK MECHANICAL ADJUSTMENTS

EQUIPMENT REQUIRED

- Cassette-type Torquemeter (100g-cm/160g-cm)
- Round-nose Pliers
- Plus Screwdriver
- A Pair of Tweezers
- Paint or glue

GENERAL REMARKS

1. Before and after the mechanism adjustment, clean the tape contacting surfaces with a soft cloth soaked in alcohol.
   Trouble may occur because of oil and grease stains.
   The belts must be kept clean while the adjustments are performed.

2. If the Pinch Roller or Belt has quality deterioration such as scratches, replace it with a new one.

3. When the cassette tape is inserted into the cassette holder, the Play button can not be pressed.
   If the Mechanism is required to function under this condition, push the Cassette Lever as illustrated, so that the button is released and the mechanism functions normally.

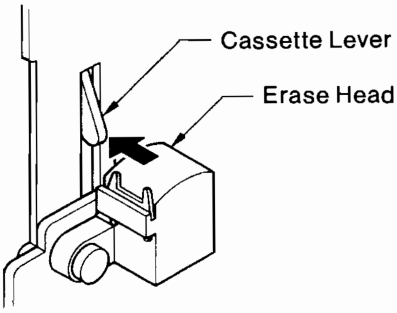


Fig.1

4. To prevent damage to the pinch rollers, always depress the STOP/EJECT button before switching the power off when in the recording mode or playback mode.
   If the POWER button is released during playback and the STOP/EJECT button is depressed in error, the cassette compartment lid will not open no matter how many times the STOP/EJECT button is depressed. In this case, depress the POWER button once again and then depress the PLAY button once, and depress the STOP/EJECT button.

POSITION ADJUSTMENT OF LEAF SWITCHES

This model has the following two leaf switches. Checking and adjustment for each switch shall be conducted in accordance with each adjusting item.
The unit should be set in the stop mode at each adjustment.

- * Motor Switch
- * Play Muting Switch

NOTE:
The clearance of the switch contacts should be 0.5 ~ 1.0mm when the switch is not mounted on the unit. If not, adjust the clearance by carefully bending the contacts.

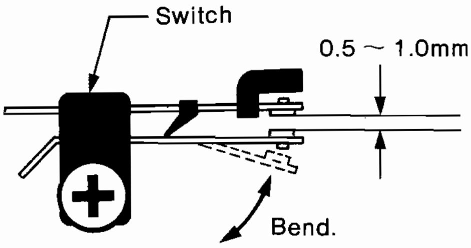


Fig. 2

1. **Motor Switch**
   This switch is turned on by the shut-off switch lever when the Play button is pressed.
   The driving motor rotates the Flywheel and the rotational force transfered by the Actuate Gear makes the mechanism function.

* Check that the Motor Switch touches the shut-off Switch Lever and the clearance of the switch contacts is 0.3 ~ 0.4mm.

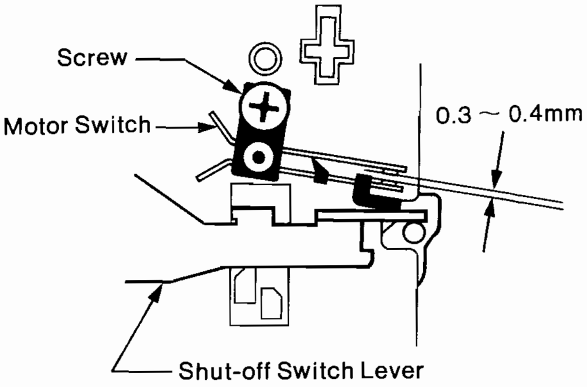


Fig. 3

2. **Play Muting Switch**
   This switch is turned on by the Slide Base when the unit is set in the recording or playback mode and it turns off the muting circuit.

   * Check that the clearance between the Play Muting Switch and the Slide Base is 0.05mm as illustrated when the Pause button is pressed.

   * Check that the clearance of the switch contacts is 0.25mm in the recording or playback mode as illustrated.

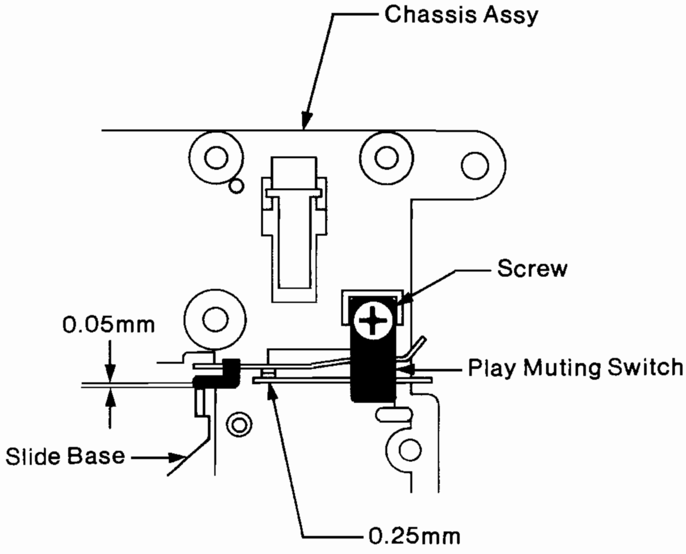

Chassis Assy
Screw
0.05mm
Play Muting Switch
Slide Base
0.25mm

Fig. 4

Switch Adjustment
Loosen the screws fastening each switch and move the switches to the specified positions if position adjustments are required.

After the adjustment, tighten the screws and secure the switches with paint or glue.

ASO LEVER

The service part of the ASO Lever is not cut to avoid deforming, as illustrated.
When replacing, cut 1.5 ~ 3mm of the part indicated in the illustration.

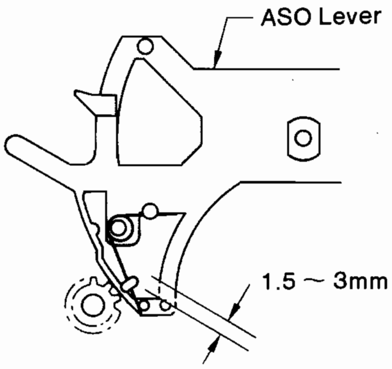

ASO Lever
1.5 ~ 3mm

Fig. 5

NOTICE ON REASSEMBLY

When reassembling the mechanism, check if the resistance between the screw fastening the Record/Playback Head and the Lug attached to the Chassis Plate is less than 3Ω.
When the resistance is more, there will be noise during recording or playback of the cassette tape.

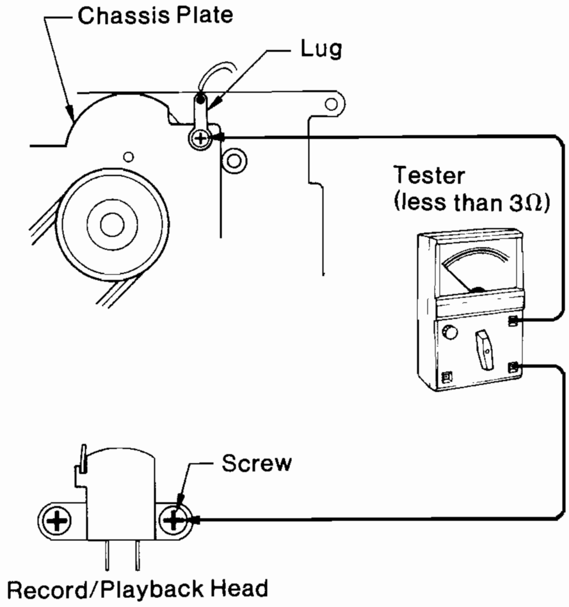
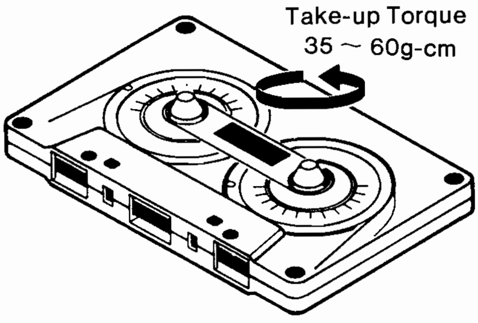

Chassis Plate
Lug
Tester
(less than 3Ω)
Screw
Record/Playback Head

Fig. 6

CASSETTE DECK MECHANICAL ADJUSTMENTS (Continued)

TAKE-UP TORQUE

1. Insert a cassette-type torquemeter (100g-cm) into the cassette compartment and set the unit in the playback mode. Then, check that the take-up torque is 35 ~ 60g-cm.



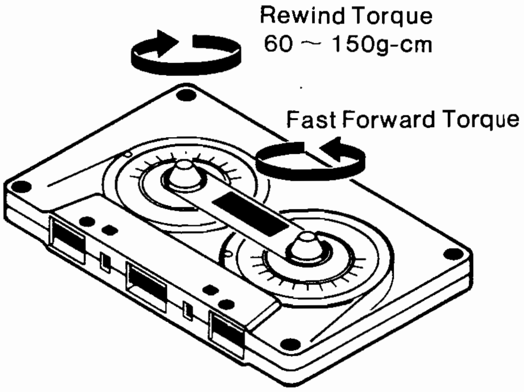
Cassette-type Torquemeter

Fig. 7

2. If not, replace the Friction Assembly with a new one.

F.FWD AND REWIND TORQUES

1. Insert a cassette-type torquemeter (160g-cm) into the cassette compartment and measure the fast forward and rewind torques. Check that each torque is 60 ~ 150g-cm.



Cassette-type Torquemeter

Fig. 8

2. If not, replace the Friction Assembly with a new one.

CASSETTE DECK ELECTRICAL ADJUSTMENTS

TAPE SPEED ADJUSTMENT

1. Connect the frequency counter to the speaker terminal. Then, insert a 3kHz test tape (Example: TEAC MTT-111) into the cassette compartment.

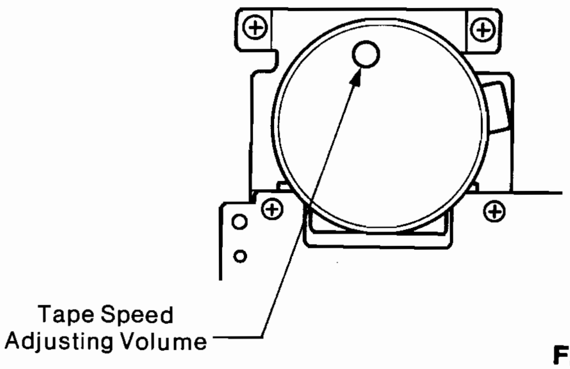


Fig. 1

2. Play back a 3kHz test tape and adjust the tape speed by slowly turning the Adjusting Volume inside the motor until the frequency counter reads 3000Hz ± 10Hz.

HEAD AZIMUTH ADJUSTMENT

1. Connect the dualtrace syncroscope and VTVM to both channels test point TP6 (Right) and TP7 (Left).

2. Play back a test tape (Example: TEAC MTT-114) to adjust the head azimuth. Observe the output wave forms of the Left and Right channels. First of all, play back the 10kHz signal. Turn the azimuth adjusting screw for the R/P Head until the phase of the Left and Right channels becomes identical and their output levels are maximized.

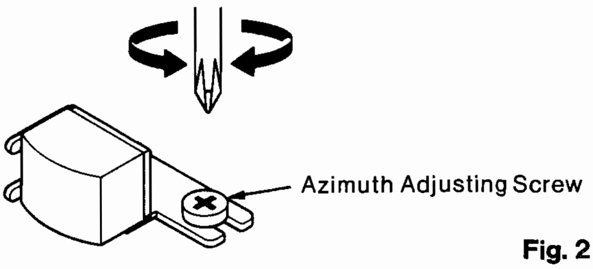
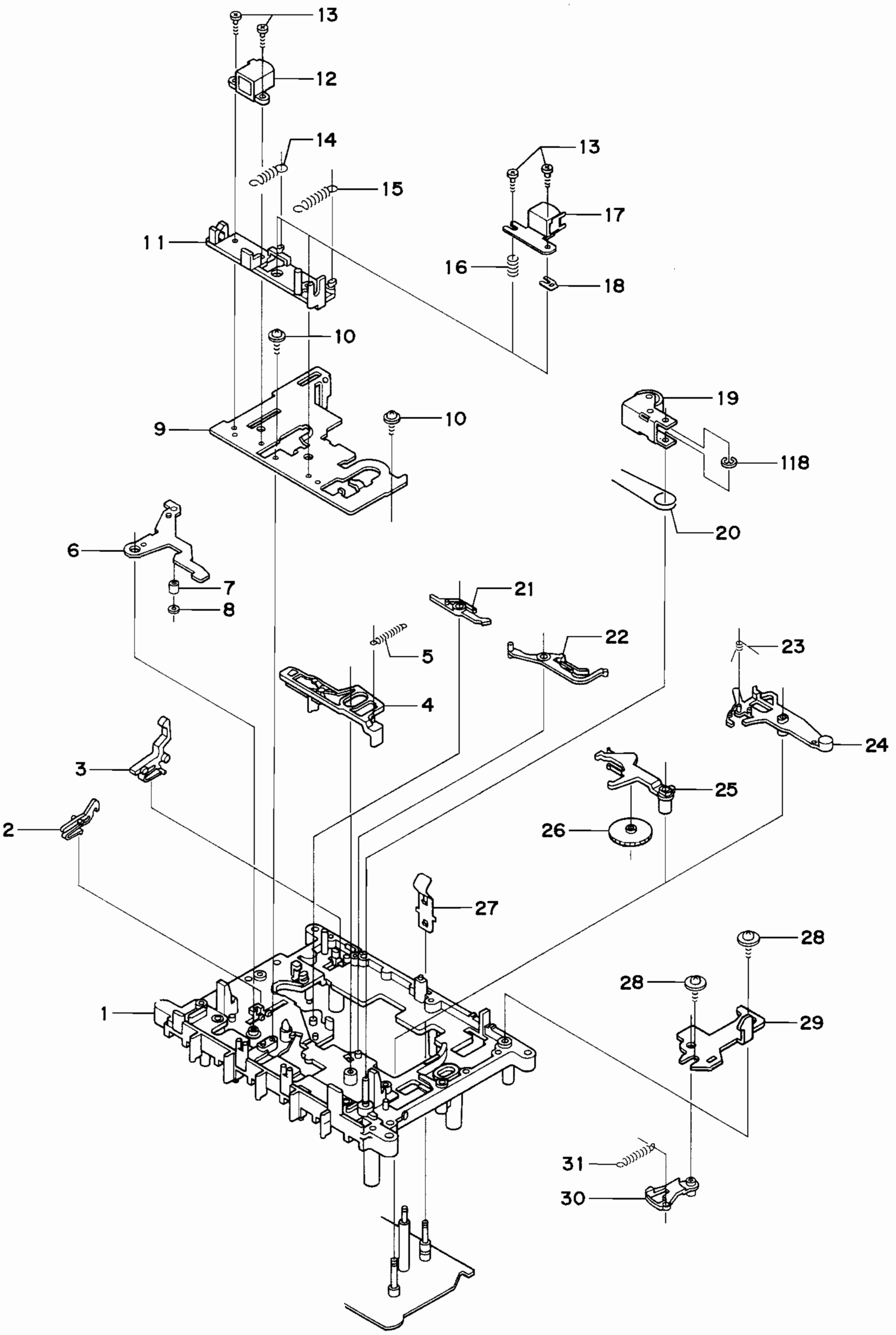


Fig. 2

3. After the adjustment, secure the azimuth adjusting screw with paint or glue.

MECHANISM EXPLODED VIEW

(Chassis Top)



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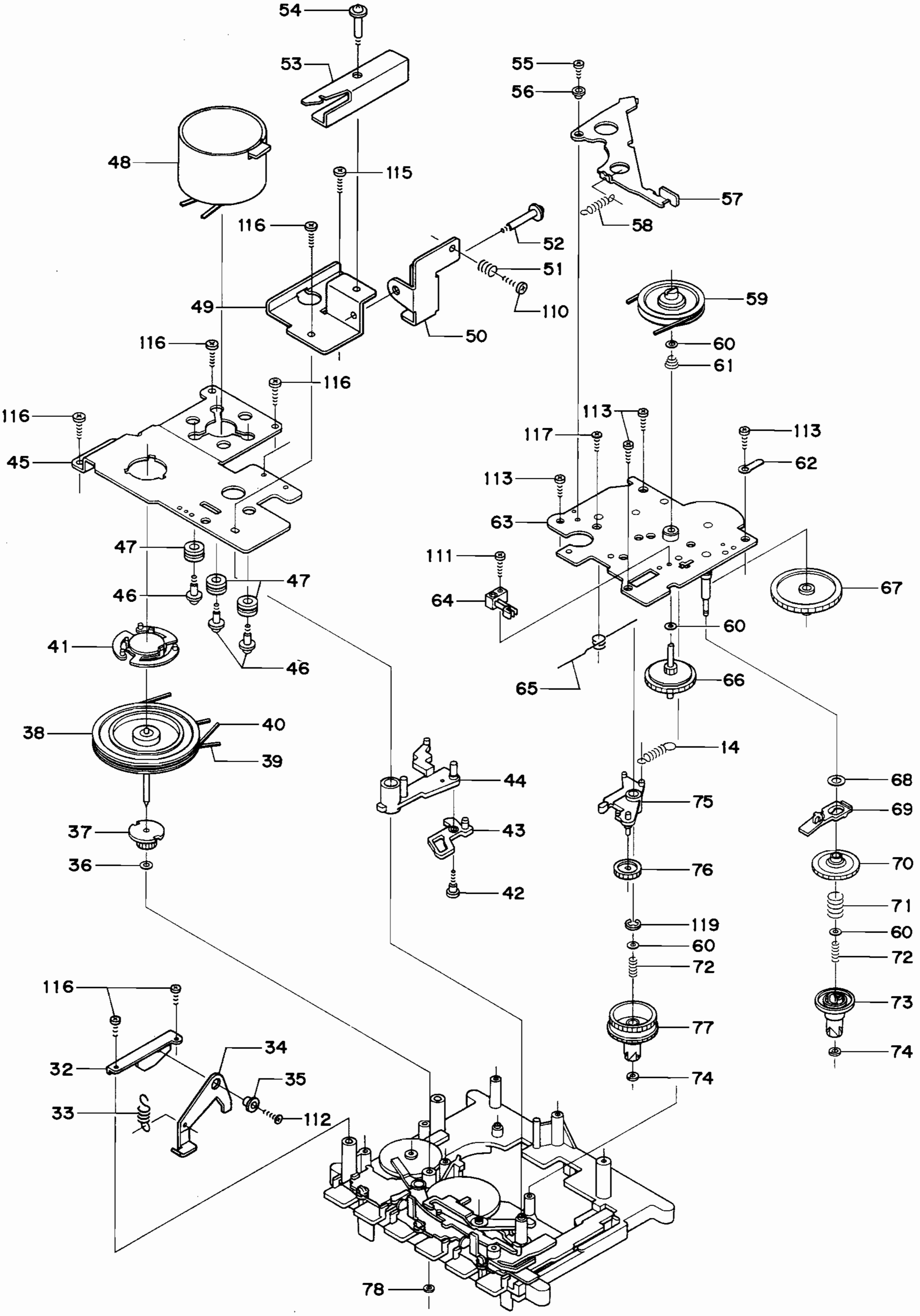
MECHANISM EXPLODED VIEW (Continued)

(Chassis Bottom 1)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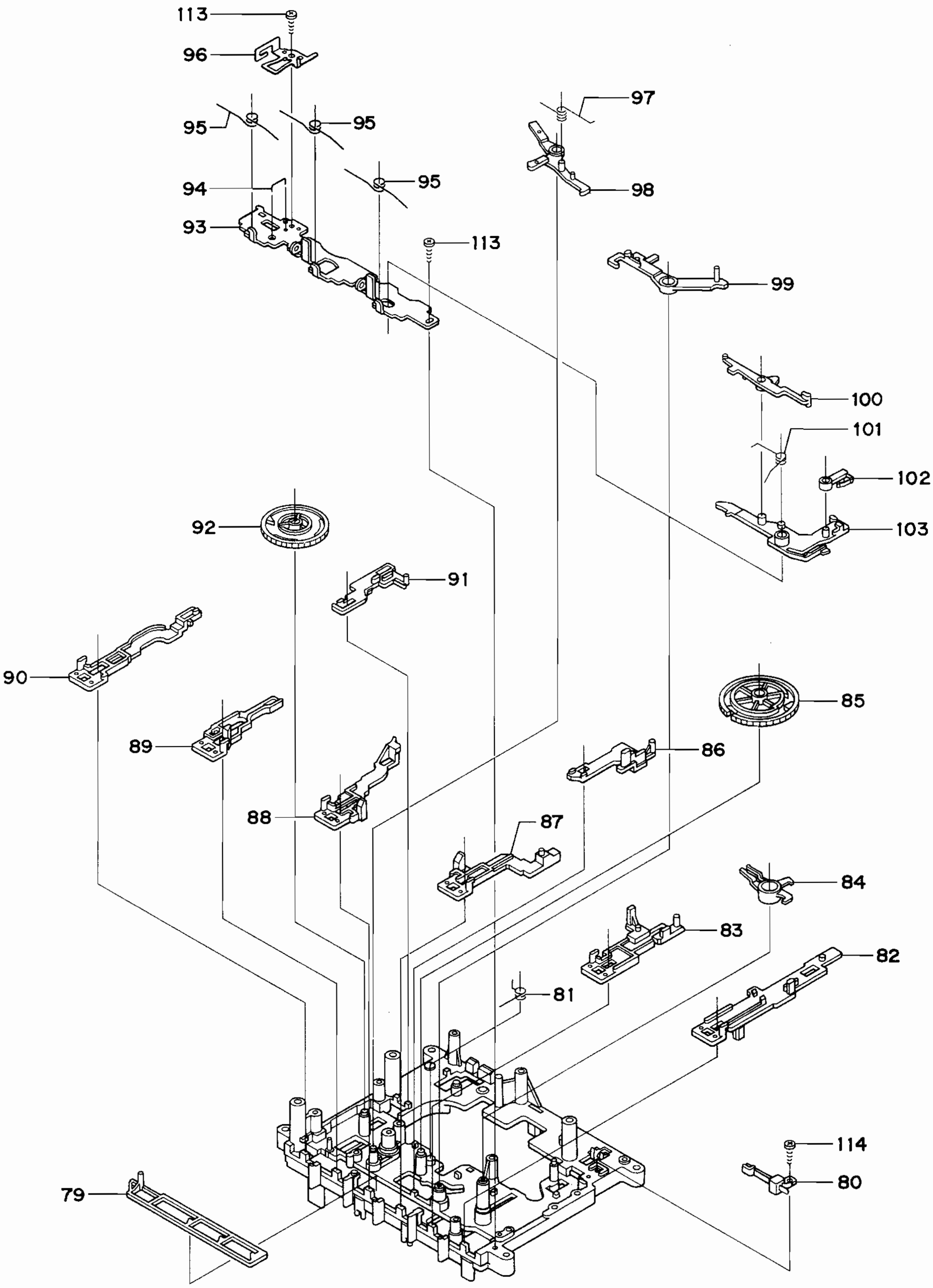
MECHANISM EXPLODED VIEW (Continued)

(Chassis Bottom 2)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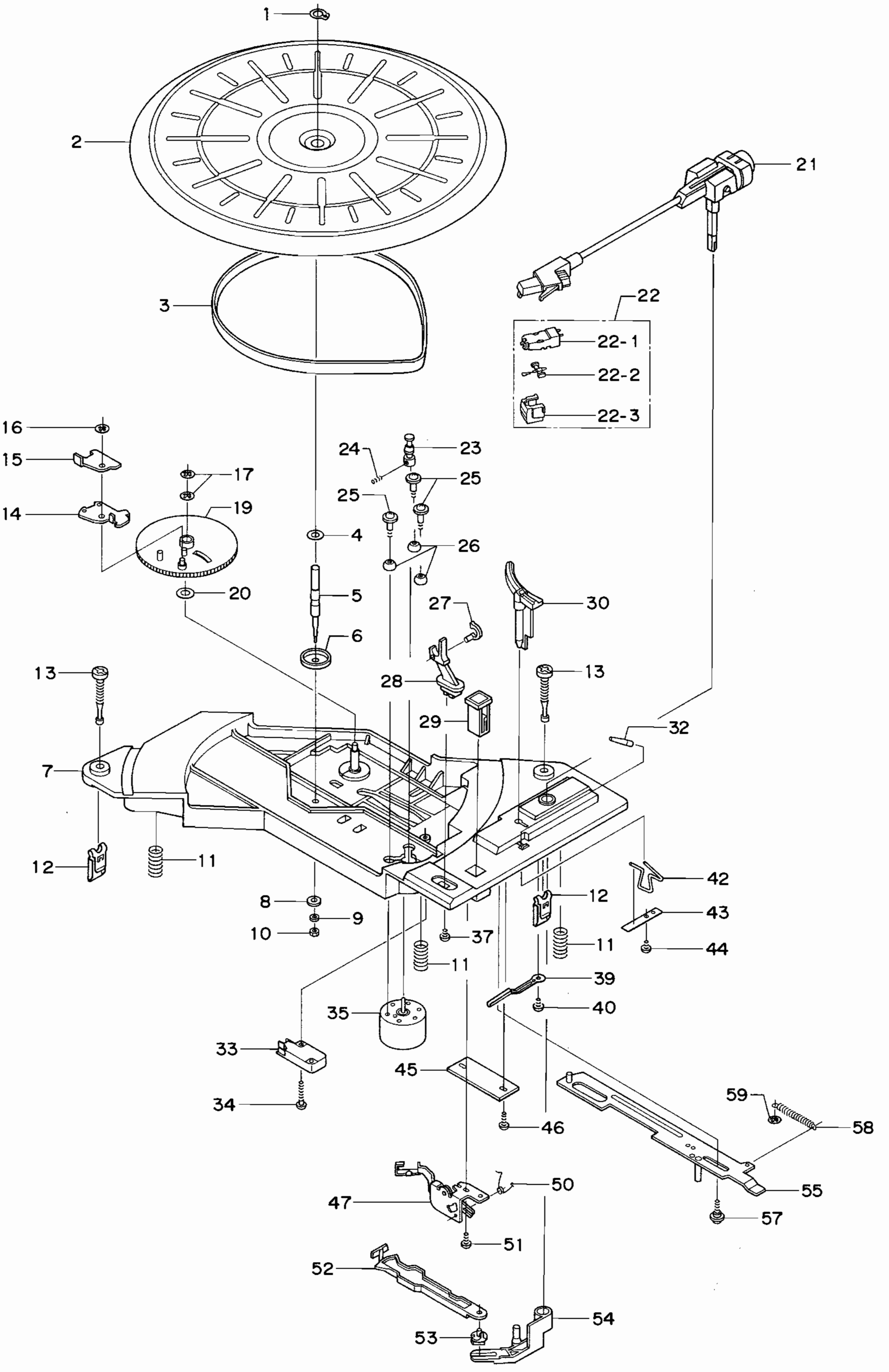
MECHANISM PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	MECHANISM		
1	141-0-3119-21900	Chassis Assy	1
2	141-2-7419-81300	Lever Cassette	1
3	141-2-8419-11700	Interlock Lever	1
4	141-2-7419-80700	Lever Base Slide	1
5	141-2-8549-05500	Spring Lever Stop	1
6	141-0-7419-36900	Lever Record Base Assy	1
7	141-2-8259-11100	Roller Record	1
8	141-2-4539-17500	Washer	1
9	141-2-7319-52801	Base Slide	1
10	141-2-4219-13201	Screw, Pan Hd. Tapp. W/Washer +M2.0x6.0	2
11	141-2-3529-35900	Speacer Head	1
12	4-2429-72200	Erase Head [HD2]	1
13	141-2-4219-30300	Screw, Bind Hd. +M2.0x6.0	4
14	141-2-8519-64900	Spring Arm Gear	2
15	141-2-8549-18700	Spring Slide Base	1
16	141-2-8559-00201	Spring Head	1
17	4-2429-72190	R/P Head [HD1]	1
18	141-2-3529-18102	Spacer Head	1
19	141-0-5419-02201	Pinch Roller Assy	1
20	141-2-8529-12500	Spring Pinch Roller	1
21	141-2-7149-05600	Brake Supply Reel	1
22	141-2-7149-05700	Brake Take-up Reel	1
23	141-2-8529-13200	Spring Sensor	1
24	141-2-7419-80100	Lever ASO	1
25	141-2-7439-30100	Arm Take-up	1
26	141-2-5519-45300	Gear Take-up	1
27	141-2-8539-47901	Spring Cassette	1
28	141-2-4219-05400	Screw, Pan Hd. Tapp. W/Washer +M2.6x6.0	2
29	141-2-7319-59300	Plate Eject	1
30	141-2-7419-81100	Lever Stop Eject	1
31	141-2-8549-18500	Spring Eject	1
32	141-2-3519-72700	Bracket Eject	1
33	141-2-8549-00600	Spring Lever Eject	1
34	141-2-7419-88900	Lever Eject	1
35	141-2-3529-16000	Spacer Lever Select	1
36	141-2-4539-20900	Washer, 2.1x5.0x0.19	1
37	141-2-5519-45200	Gear Flywheel	1
38	141-2-5219-14500	Flywheel Capstan	1
39	141-2-5649-21200	Belt Wind	1
40	141-2-5649-22900	Belt Drive	1
41	141-2-5739-06300	Thrust Flywheel	1
42	141-2-4219-23000	Screw, Tapping +M2.0x6.0	1
43	141-2-7419-81200	Lever Record Select	1
44	141-2-7419-81400	Arm Record	1
45	141-2-3519-68100	Support Flywheel	1
46	141-2-4219-30100	Screw, Pan Hd. W/Washer +M2.6x6.5	3
47	141-2-4459-11800	Cushion Motor	3
48	4-5279-71237	Motor	1
49	141-2-8419-15700	Mount Lever Record	1
50	141-2-8419-15900	Holder Lever Record	1
51	141-2-8519-34000	Spring Adzimuth	1
52	134-2-4106-22201	Shaft	1
53	141-2-8419-15800	Lever Record	1
54	134-2-4106-22200	Shaft	1
55	141-2-4219-03000	Screw, +M2.0x3.0	1
56	141-2-3529-36100	Spacer Lever	1
57	141-2-7419-82800	Lever Shut Off Switch	1
58	141-2-8519-61100	Spring Slide	1
59	141-2-5519-45700	Pulley Friction	1
60	141-2-4539-27601	Washer, 2.1x3.5x0.13	4
61	141-2-8559-04700	Spring Pulley	1
62	141-2-4729-03700	Lug	1
63	141-0-3119-21800	Plate Chassis Assy	1
64	4-2319-74362	Leaf Switch (Motor) [S1]	1
65	141-2-8529-12700	Spring Arm FF	1
66	141-0-5519-09600	Friction Assy	1
67	141-2-5519-45600	Gear ASO	1
68	141-2-4539-28001	Washer, 4.1x6.5x0.13	1
69	141-2-7419-80200	Lever Rewind	1
70	141-2-5319-11600	Gear Reel Supply	1
71	141-2-8519-67900	Spring Reel	1
72	141-2-8559-00100	Spring Supply	2
73	141-2-5319-11700	Fin Reel Supply	1
74	141-2-4539-15700	Washer, 1.5x3.5x0.4	2
75	141-2-7439-30000	Arm Fastwind	1
76	141-2-5519-45100	Gear Fastwind	1
77	141-2-5319-11500	Gear Reel Take-up	1
78	141-2-4539-17600	Washer, 1.9x3.1x0.3	1
79	141-2-7319-53600	Plate Lock	1
80	4-2319-74550	Leaf Switch (Mute) [S2]	1
81	141-2-8529-12600	Spring Gear Acutate Play	1
82	141-2-7319-53500	Rod Record	1
83	141-2-7319-53400	Rod Play	1
84	141-2-7419-80400	Lever Lock Record	1
85	141-2-5519-45900	Gear Actuate Play	1
86	141-2-7319-52900	Rod Switch	1
87	141-2-7319-53300	Rod Rewind	1
88	141-2-7319-53200	Rod Fastwind	1
89	141-2-7319-53100	Rod Pause	1
90	141-2-7319-53000	Rod Stop	1
91	141-2-7319-54900	Rod ASO	1
92	141-2-5519-45800	Gear Actuate Pause	1
93	141-2-6139-14300	Frame Rod	1
94	141-2-8529-12800	Spring Pause Latch	1
95	141-2-8529-12401	Spring Rod FF	3
96	141-2-8539-46700	Spring Plate Lock	1
97	141-2-8529-13300	Spring Lever Pause	1
98	141-2-7419-80600	Lever Pause Start	1
99	141-2-7419-80500	Lever Play Start	1
100	141-2-7419-80800	Lever Switch Cue Review	1
101	141-2-8529-14200	Spring Stop Record	1
102	141-2-7419-80900	Lever Spring Stop Record	1
103	141-2-7419-81000	Lever Stop Record	1
	SCREW & E RING		
110	101-3-1303-01211	Screw, Pan Hd., +M3.0x12	1
111	101-3-1702-00818	Screw, Bind Hd., +M2.0x8	1
112	101-3-1202-60611	Screw, Flat Hd., +M2.6x6	1
113	143-3-1702-00618	Screw, Bind Hd. Tapping-B, +M2.0x6	6
114	143-3-1702-00818	Screw, Bind Hd. Tapping-B, +M2.0x8	1
115	143-3-1702-60611	Screw, Bind Hd. Tapping-B, +M2.6x6	1
116	143-3-1702-60818	Screw, Bind Hd. Tapping-B, +M2.6x8	6
117	143-3-1202-00818	Screw, Flat Hd. Tapping-B, +M2.0x8	1
118	112-3-1302-00082	E Ring, M2.0	1
119	112-3-1303-00082	E Ring, M3.0	1

NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

TURNTABLE EXPLODED VIEW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TURNTABLE PARTS LIST

Ref. No.	Part No.	Description	Q'ty
	TURNTABLE		
	4-1342-00800	Player (FK-102HR-3)	1
1	XUB070FI	Retaining Clip	1
2	FFP-TTA101-4	Turntable Assy	1
3	FF-GBR009	Belt	1
4	FZ-WAP200	Thrust Washer	1
5	FF-TTS061-R	Turntable Shaft	1
6	FZ-WAM129	Turntable Washer	1
7	FFP-UCP024	Motor Board	1
8	FZP-WAM003	Washer	1
9	XWA040BFW	Spring Washer	1
10	XNG040E	Nut	1
11	FF-BCP067	Cushion Spring	3
12	FF-BPL004	Transit Spring	2
13	FF-ESC031	Transit Screw	2
14	FF-EPT028	Starting Link	1
15	FF-EPT029	Friction Link	1
16	XUFM030VI	Retaining Clip	1
17	XUFM040VI	Retaining Clip	2
19	FB-GGG260	Main Gear	1
20	FZ-WAP270	Thrust Washer	1
21	PA-311S-3	Pick-up Arm Assy	1
22	CZ-680-22	Cartridge Assy	1
22-1	CZ-680-6C	Cartridge	1
22-2	6-2291-2	Stylus	1
22-3	6-2213	Stylus Cover	1
23	FF-MCP117	Capstan	1
24	KT-26030UF	Screw	1
25	FF-ESC039	Motor Mounting Screw	3
26	FF-GBS017	Cushion Rubber	3
27	FF-ISP084	Pick-up Clamper	1
28	FF-ISP077	Pick-up Stand	1
29	FF-ISP082	Speed Change Knob	1
30	FF-ISP081	Pick-up Lifter	1
32	FF-ISP036	Cueing Knob	1
33	K2	Switch	1
34	XTN030+J0180FX	Screw	1
35	MMI-5P2RK3	Motor	1
37	XTN030+J0050FY	Screw	1
39	FF-BPP025	Lift Spring	1
40	XTN030+J0080FX	Screw	1
42	FF-ABR014	Cueing Lever	1
43	FF-BPP024	Spring Plate	1
44	XTN030+J0050FY	Screw	1
45	FF-ETA146	Print Base Assy	1
46	XTN030+J0080FX	Screw	1
47	FF-ETA141	Speed Change Assy	1
50	FF-BCL013	Moderation Spring	1
51	XTW030+J0060FX	Screw	1
52	FF-EPT115	Starting Lever	1
53	FF-ISP083	Adjust Knob	1
54	FF-EPT116	Return Link	1
55	FF-ETA142	Sub Plate Assy	1
57	FF-ESC038	Sub Plate Screw	1
58	FF-BTN035	Sub Plate Spring	1
59	XUFM030VI	Retaining Clip	1

NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

TURNTABLE MAINTENANCE

CLEANING THE STYLUS

Dust particles often build up around the stylus. If the build-up becomes excessive it will result in noisy sound reproduction and will eventually shorten the lives of both the record and the stylus. Should this occur, do not remove the dust with your fingers or a tool. Lift the tonearm by its handle and blow the dust away or use a stylus brush.

REPLACING THE STYLUS

For distortion-free sound reproduction, replace the stylus after 1000 to 2000 LP plays. To remove the old stylus, pull the stylus down and then forward, away from the tonearm as shown in Fig.1. To install a new stylus, insert the stylus in it's proper place until a click is heard.

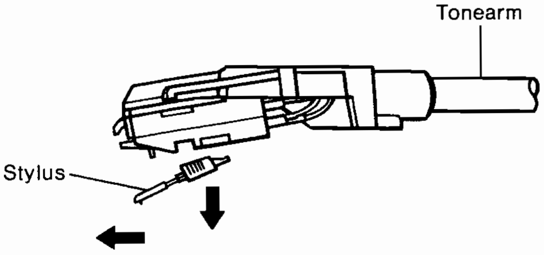


Fig.1

REPLACING THE CARTRIDGE

Insert a small screwdriver on the front retaining clip and twist it a little until it releases the cartridge assembly as shown in Fig.2. Unplug the four wires from cartridge. Plug the four wires into the replacement cartridge. Be sure to plug the wires (color coded) into the terminals as shown in Fig.3. Place the lip of the cartridge (located at the rear of the cartridge) in the slot in the tonearm and push the cartridge up until it clicks into place.

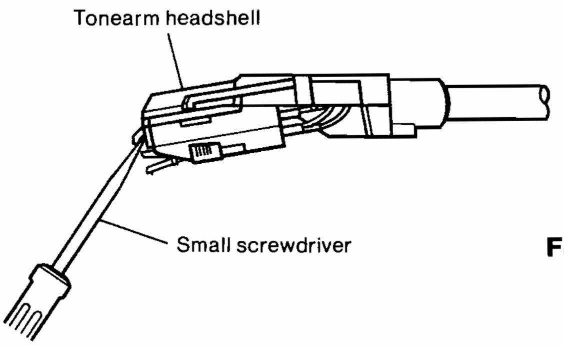
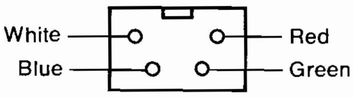


Fig. 2

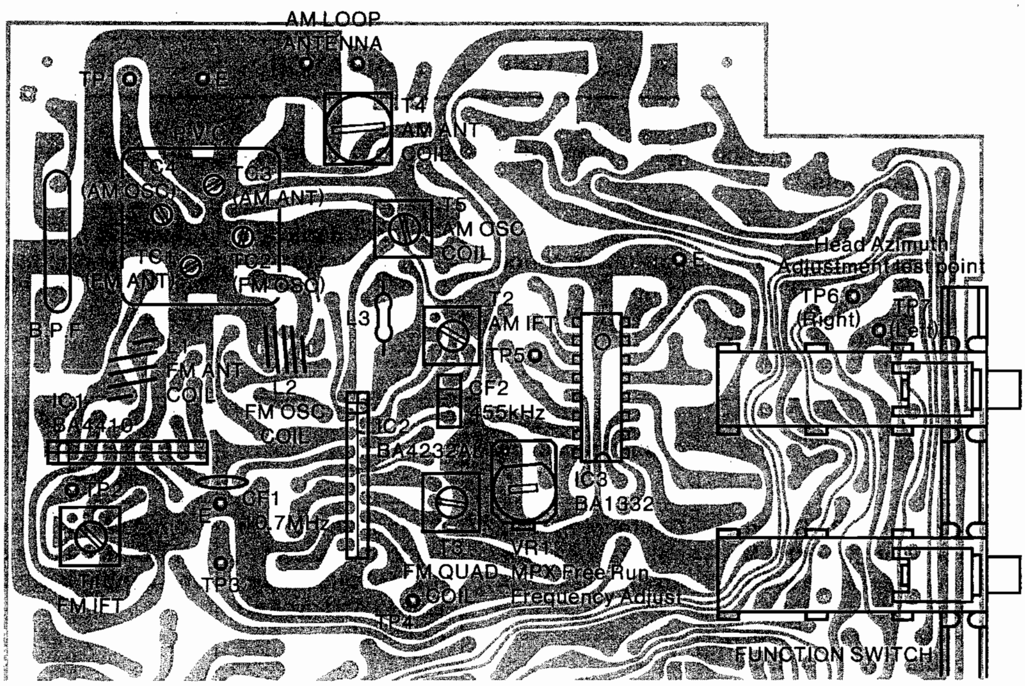


Location of color coded wires on rear of cartridge

Fig. 3

PRINTED CIRCUIT BOARD ALIGNMENT POINTS

(TUNER SECTION)


AM LOOP ANTENNA
TP1
E
P.V.C.
TC4 (AM OSC)
TC3 (AM ANT)
T4 AM ANT COIL
T5 AM OSC COIL
TC1 (FM ANT)
TC2 (FM OSC)
B.P.F.
L1 FM ANT COIL
L2 FM OSC COIL
L3
T2 AM IFT
TP5
CF2 455kHz
IC1 BA4410
IC2 BA4232AL
IC3 BA1332
TP2
CF1 10.7MHz
E
T1 FM IFT
TP3
T3 FM QUAD COIL
TP4
VR1 MPX Free Run Frequency Adjust
E
Head Azimuth Adjustment test point
TP6 (Right)
TP7 (Left)
FUNCTION SWITCH

AM TUNER ALIGNMENT

AM ALIGNMENT – FUNCTION switch to AM position.
Maintain generator output as low as possible for suitable indication.

Note:
Perform this alignment after FM Tuner Alignment.

Standard test frequency 1kHz and Modulation 30% at AM

ITEM	GENERATOR	DIAL SETTING	INDICATOR	PROCEDURE
1. AM IF ALIGNMENT	Connect 455kHz Radio IF Genescope output to TP1 and ground terminal.	Position of non-interference Minimum Frequency.	Connect Radio IF Genescope input to TP4 and ground terminal. Use 10μF Capacitor in series with generator lead.	Adjust AM IFT (T2) for maximum gain and best symmetry. Keep signal low enough for noise on responce.
2. AM RF TRACKING ALIGNMENT (515kHz)	Connect Standard Loop Antenna to output terminal of AM RF Signal Generator. Place Loop Antenna 60cm away from Loop Antenna of MC-705. Generator Setting to 515kHz. Modulate with 1kHz (30 % modulation).	Center of 515kHz calibration mark on dial.	Connect AC VTVM and Oscilloscope to TP4 and ground terminal.	Adjust AM OSC Coil (T5) and AM ANT Coil (T4) for maximum gain output.
3. (1670kHz)	Change generator setting to 1670kHz.	Center of 1670kHz calibration mark on dial.	Same as above.	Adjust AM OSC Trimmer (TC4) and AM ANT Trimmer (TC3) for best waveform and maximum deflection.
Note: Repeat the adjustments in Items 2 and 3. Then, confirm there is no tracking error.				

Use a screwdriver with plastic grip for all adjustments.

FM TUNER ALIGNMENT

FM ALIGNMENT – FUNCTION switch to FM STEREO

Standard test frequency 1kHz and deviation ±40kHz

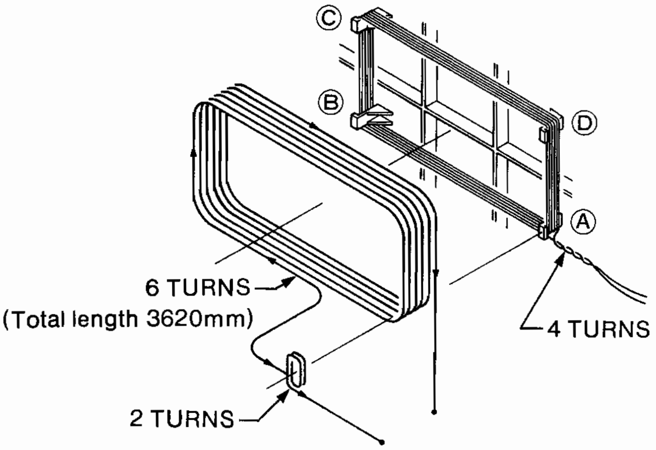
ITEM	GENERATOR	DIAL SETTING	INDICATOR	PROCEDURE
Note: The FM IF circuit utilizes a non-turnable ceramic filter which establishes the IF bandpass. To insure symmetrical turning and selectivity, the IF must be aligned precisely to the center of the filter bandpass, rather than to 10.7MHz as in conventional LC circuits.				
1. FM IF S-CURVE ALIGNMENT	Connect 10.7MHz Radio IF Genescope output to TP2 and ground terminal. Use 10~20pF Capacitor in series with generator lead.	Position of non-interference Minimum Frequency.	Connect Radio IF Genescope input to TP3 and ground terminal.	Adjust FM IFT (T1) and FM QUAD Coil (T3) until the S-curve becomes symmetrical and straight.
2. FRONT END ALIGNMENT		Tuning knob fully counterclockwise.		Place center of dial pointer on "0" (zero) and secure pointer with bonding material.
3. FM RF TRACKING ALIGNMENT (87MHz)	Connect FM RF Signal Generator through FM Dummy Antenna to FM Antenna terminals. Set generator to 87MHz. Modulate with 1kHz to provide ±40kHz deviation. Set Generator output with attenuator as low as possible.	Center of 87MHz calibration mark on dial.	Connect AC VTVM, Distortion Meter and Oscilloscope to TP3 and ground terminal.	Adjust FM OSC Coil (L2) and FM ANT Coil (L1) for best waveform and minimum distortion.
4. (109MHz)	Change generator Setting to 109MHz.	Center of 109MHz calibration mark on dial.	Same as above.	Adjust FM OSC Trimmer (TC2) and FM ANT Trimmer (TC1) for best waveform and deflection.
Note: Repeat Items 3 and 4, and confirm that Tracking Error is minimized and best sensitivity is obtained at each frequency point. Then, set generator to 98MHz and confirm that the pointer is correctly set on the dial plate.				
5. PLL IC FREE RUN FREQUENCY ADJUSTMENT (19kHz)	Set generator to 98MHz ±2kHz Adjust attenuator output for 60dB.	Center of 98MHz calibration mark on dial.	Connect Frequency Counter to TP5 and ground terminal. Use 100kΩ Resistor in series with Frequency Counter lead.	Adjust VR1 in multiplex circuit to obtain 19kHz ±50Hz on Frequency Counter.

Use a screwdriver with plastic grip for all adjustments.

AM ANTENNA COIL STRINGING

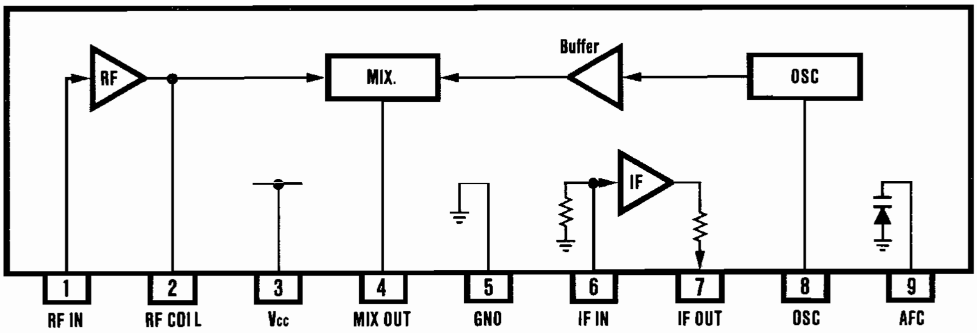
REPLACEMENT OF AM ANTENNA COIL

1. Wind twice the enamel lead counterclockwise on to the boss A right inside of the cabinet as illustrated.
2. Wind six times the enamel lead clockwise in alphabetical order (A → B → C → D) without slackening as illustrated.
3. Twist four times the beginning and terminal of leads together to make string as illustrated.
4. Shave 15mm in length of the enamel surface of both leads end expose the copper part.
5. Wind the antenna coil lead on to the AM antenna terminal of the RF/Audio P.C.Board and solder it.

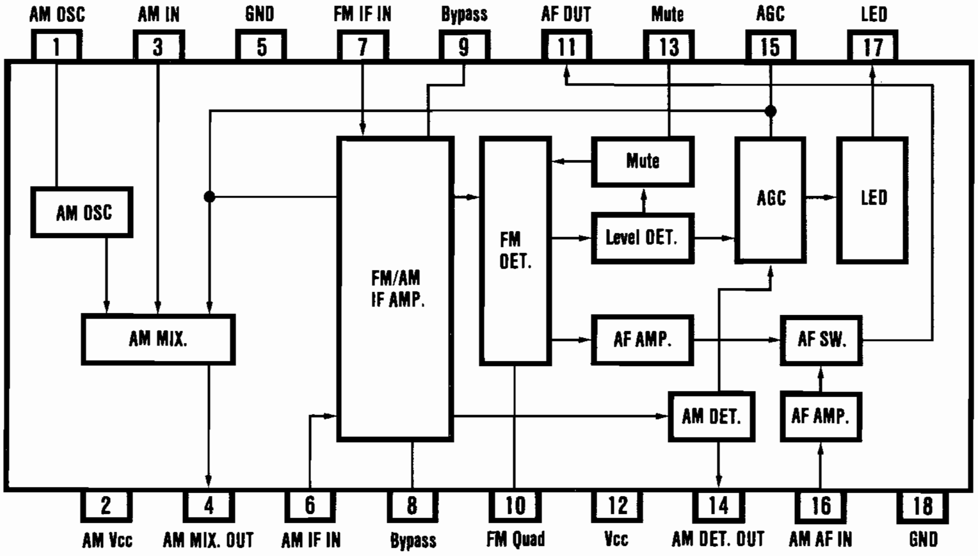


INTEGRATED CIRCUIT BLOCK DIAGRAM

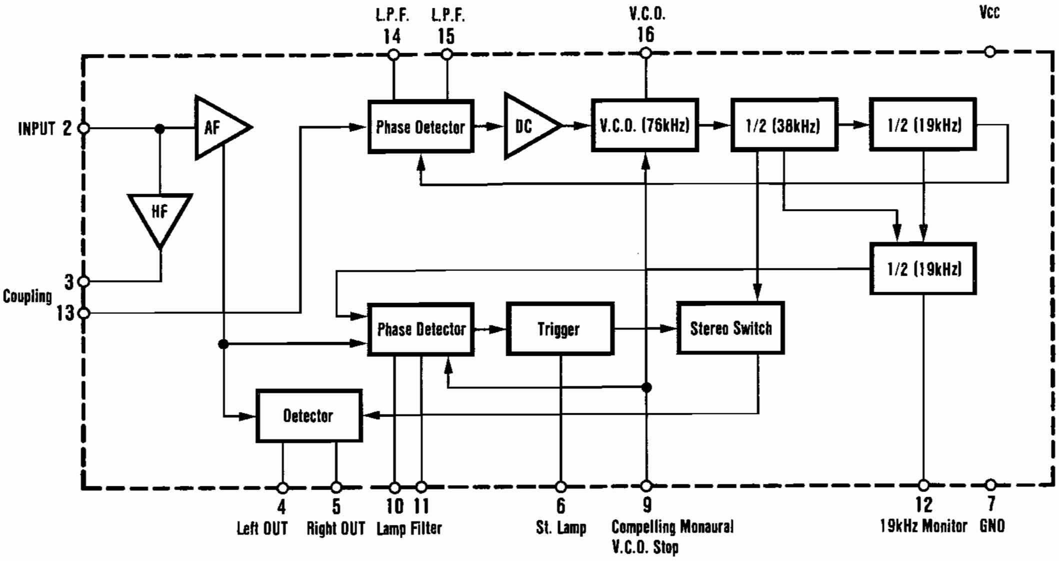
FM RF AMP IC BA 4410


RF
MIX.
Buffer
OSC
IF
1
2
3
4
5
6
7
8
9
RF IN
RF COIL
Vcc
MIX OUT
GND
IF IN
IF OUT
OSC
AFC

AM/FM IF AMP IC BA 4232 AL

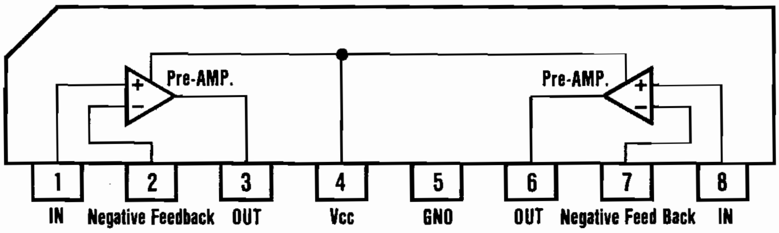

AM OSC
AM IN
GND
FM IF IN
Bypass
AF OUT
Mute
AGC
LED
1
3
5
7
9
11
13
15
17
AM OSC
AM MIX.
FM/AM
IF AMP.
FM
DET.
Mute
Level DET.
AGC
LED
AF AMP.
AF SW.
AM DET.
AF AMP.
2
4
6
8
10
12
14
16
18
AM Vcc
AM MIX. OUT
AM IF IN
Bypass
FM Quad
Vcc
AM DET. OUT
AM AF IN
GND

FM MPX IC BA 1332


L.P.F.
14
L.P.F.
15
V.C.O.
16
Vcc
INPUT 2
AF
HF
Coupling
3
13
Phase Detector
DC
V.C.O. (76kHz)
1/2 (38kHz)
1/2 (19kHz)
1/2 (19kHz)
Phase Detector
Trigger
Stereo Switch
Detector
4
5
10
11
6
9
12
7
Left OUT
Right OUT
Lamp Filter
St. Lamp
Compelling Monaural
V.C.O. Stop
19kHz Monitor
GND

INTEGRATED CIRCUIT BLOCK DIAGRAM (Continued)

REC/PLAY AMP IC LA 3160



Pre-AMP.
Pre-AMP.
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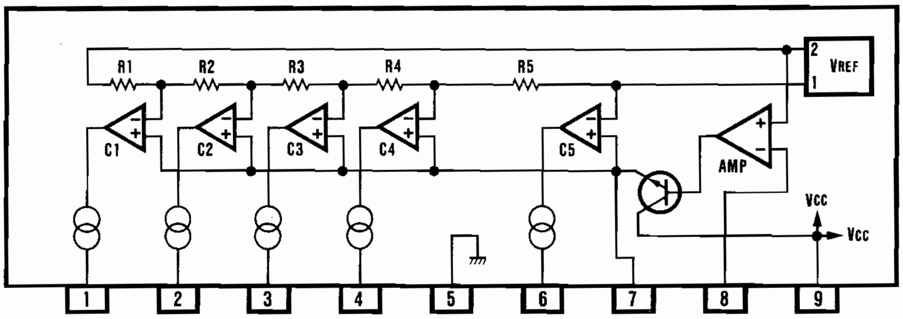
IN
Negative Feedback
OUT
Vcc
GNO
OUT
Negative Feed Back
IN

LED DRIVER IC TA 7366 P



R1
R2
R3
R4
R5
VREF
2
1
C1
C2
C3
C4
C5
AMP
Vcc
Vcc
1
2
3
4
5
6
7
8
9

P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description				Q'ty
	RF/AUDIO P.C.B. ASSY					
47	141-0-1939-10123	RF/Audio P.C.B. Assy				1
	4-2262-22941	RF/Audio P.C.B.				1
	4-2249-71080	Poli Varicon				1
	⚠ 4-2349-20250	Fuse T2.0A				1
	4-2352-01940	Fuse Clip				2
BPF1	4-2539-71520	Band Pass Filter				1
CF1	4-2272-00300	Ceramic Filter 10.7MHz				1
CF2	4-2272-00280	Ceramic Filter				1
L1	4-2599-71190	FM ANT Coil				1
L2	4-2589-72900	FM OSC Coil				1
L3	4-2539-71140	Choke Coil (220µH)				1
L4	4-2539-71850	Choke Coil (470µH)				1
L5	4-2539-71420	Choke Coil (100µH)				1
T1	4-2569-71632	FM IFT				1
T2	4-2569-71850	AM IFT				1
T3	4-2569-71860	FM Quad Coil				1
T4	4-2579-72080	AM ANT Coil				1
T5	4-2589-72910	AM OSC Coil				1
T6	4-2599-71180	Cassette Bias Trap				1
T7	4-2599-71180	Cassette Bias Trap				1
VR1	4-2222-01400	Potentiometer (B-10kΩ)				1
S1	4-2319-78070	Switch Slide 9 (Record/Play)				1
S2	4-2319-78060	Switch Push 4Key (Function)				1
	4-2359-76629	Connector 5P Assy				1
	131-2-6108-11201	Cover Sever				2
	CAPACITORS					
C1	CC4-7-0500-KD00C	Ceramic	47pF	50V	±10%	1
C2	CC2-0-0500-JD00C	Ceramic	20pF	50V	±5%	1
C3	CC1-0-2500-KE00C	Ceramic	0.001µF	50V	±10%	1
C4	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C5	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C6	CC1-0-0500-DCH0C	Ceramic	10pF	50V	±0.5%	1
C7	CC5-0-A500-DCH0C	Ceramic	5pF	50V	±0.5%	1
C8	CC2-7-0500-JTH0C	Ceramic	27pF	50V	±5%	1
C9	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C10	CC5-0-A500-DUJ0C	Ceramic	5pF	50V	±0.5%	1
C11	CD3-3-6160-0001V	Electrolytic	33µF	16V		1
C12	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C13	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C14	CI3-9-3250-KF00C	Boundary	0.039µF	25V	±10%	1
C15	CD1-0-4500-0001V	Electrolytic	0.1µF	50V		1
C16	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C17	CC2-2-1500-KD00C	Ceramic	220pF	50V	±10%	1
C18	CD4-7-5250-0001V	Electrolytic	4.7µF	25V		1
C19	CD1-0-5500-0001V	Electrolytic	1µF	50V		1
C20	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C21	CD4-7-6160-0001V	Electrolytic	47µF	16V		1
C22	CD3-3-5500-0001V	Electrolytic	3.3µF	50V		1
C23	CD1-0-7160-0001V	Electrolytic	100µF	16V		1
C24	CC4-7-3500-ZG00C	Ceramic	0.047µF	50V	+80,-20%	1
C25	CS1-0-2500-J000V	Polystyroul	0.001µF	50V	±5%	1
C26	CD2-2-4500-0001V	Electrolytic	0.22µF	50V		1
C27	CD4-7-4500-0001V	Electrolytic	0.47µF	50V		1
C28	CD1-0-5500-0001V	Electrolytic	1µF	50V		1
C29	CM2-2-3500-K00SV	Mylar	0.022µF	50V	±10%	1
C30	CM2-2-3500-K00SV	Mylar	0.022µF	50V	±10%	1
C31	CD1-0-5500-0001V	Electrolytic	1µF	50V		1
C32	CD1-0-5500-0001V	Electrolytic	1µF	50V		1
C33	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C34	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C35	CC2-2-0500-KD00C	Ceramic	22pF	50V	±10%	1
C36	CC2-2-0500-KD00C	Ceramic	22pF	50V	±10%	1
C37	CD1-0-5500-0001V	Electrolytic	1µF	50V		1
C38	CD1-0-5500-0001V	Electrolytic	1µF	50V		1
C39	CC1-0-1500-KD00C	Ceramic	100pF	50V	±10%	1
C40	CC1-0-1500-KD00C	Ceramic	100pF	50V	±10%	1
C43	CD1-0-6160-0001V	Electrolytic	10µF	16V		1
C44	CD1-0-6160-0001V	Electrolytic	10µF	16V		1
C45	CD4-7-6160-0001V	Electrolytic	47µF	16V		1
C46	CD1-0-7160-0001V	Electrolytic	100µF	16V		1
C47	CC3-3-1500-KE00C	Ceramic	330pF	50V	±10%	1
C48	CC3-3-1500-KE00C	Ceramic	330pF	50V	±10%	1
C51	CC2-2-2500-KE00C	Ceramic	0.0022µF	50V	±10%	1
C52	CC2-2-2500-KE00C	Ceramic	0.0022µF	50V	±10%	1
C53	CC8-2-1500-KE00C	Ceramic	820pF	50V	±10%	1
C54	CC8-2-1500-KE00C	Ceramic	820pF	50V	±10%	1
C55	CD1-0-6160-0001V	Electrolytic	10µF	16V		1
C56	CD1-0-6160-0001V	Electrolytic	10µF	16V		1
C57	CM3-9-2500-K00SV	Mylar	0.0039µF	50V	±10%	1
C58	CM3-9-2500-K00SV	Mylar	0.0039µF	50V	±10%	1
C59	CD1-0-6160-0001V	Electrolytic	10µF	16V		1
C60	CD1-0-6160-0001V	Electrolytic	10µF	16V		1
C61	CC4-7-1500-KD00C	Ceramic	470pF	50V	±10%	1
C62	CC4-7-1500-KD00C	Ceramic	470pF	50V	±10%	1
C63	CC2-2-1500-KD00C	Ceramic	220pF	50V	±10%	1
C64	CC2-2-1500-KD00C	Ceramic	220pF	50V	±10%	1
C65	CM2-2-3500-K00SV	Mylar	0.022µF	50V	±10%	1
C66	CM2-2-3500-K00SV	Mylar	0.022µF	50V	±10%	1
C67	CD3-3-5500-0001V	Electrolytic	3.3µF	50V		1
C68	CD3-3-5500-0001V	Electrolytic	3.3µF	50V		1
C69	CD1-0-763A-0001V	Electrolytic	100µF	6.3V		1
C70	CD1-0-763A-0001V	Electrolytic	100µF	6.3V		1
C71	CC4-7-3500-ZG00C	Ceramic	0.047µF	50V	+80,-20%	1
C72	CM1-0-3500-K00SV	Mylar	0.01µF	50V	±10%	1
C73	CM1-0-3500-K00SV	Mylar	0.01µF	50V	±10%	1
C74	CM1-0-4500-J00TV	Mylar	0.1µF	50V	±5%	1
C75	CD1-0-6160-0001V	Electrolytic	10µF	16V		1
C76	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C77	CD2-2-7160-0001V	Electrolytic	220µF	16V		1
C78	CD1-0-7250-0001V	Electrolytic	100µF	25V		1
C79	CD2-2-7250-0001V	Electrolytic	220µF	25V		1
C80	CD2-2-7160-0001V	Electrolytic	220µF	16V		1
C81	CD1-0-5500-0001V	Electrolytic	1µF	50V		1
C82	CD2-2-8250-0001V	Electrolytic	2200µF	25V		1
C83	CC1-0-3500-ZG00C	Ceramic	0.01µF	50V	+80,-20%	1
C84	CC1-0-3500-ZG00C	Ceramic	0.01µF	50V	+80,-20%	1
C85	CC1-0-3500-ZG00C	Ceramic	0.01µF	50V	+80,-20%	1
C86	CC1-0-3500-ZG00C	Ceramic	0.01µF	50V	+80,-20%	1
C89	CD4-7-6160-0001V	Electrolytic	47µF	16V		1
C90	CD4-7-6160-0001V	Electrolytic	47µF	16V		1
C91	CD1-0-763A-0001V	Electrolytic	100µF	6.3V		1
C92	CD1-0-763A-0001V	Electrolytic	100µF	6.3V		1
C93	CD1-0-8160-0001V	Electrolytic	1000µF	16V		1
C94	CD1-0-8160-0001V	Electrolytic	1000µF	16V		1
C95	CC6-8-1500-KE00C	Ceramic	680pF	50V	±10%	1
C96	CC6-8-1500-KE00C	Ceramic	680pF	50V	±10%	1
C97	CD1-0-7250-0001V	Electrolytic	100µF	25V		1
C98	CM1-5-4500-M00SV	Mylar	0.15µF	50V	±20%	1
C99	CM1-5-4500-J00TV	Mylar	0.15µF	50V	±5%	1
C100	CM1-5-4500-J00TV	Mylar	0.15µF	50V	±5%	1
C101	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C102	CD1-0-6160-0001V	Electrolytic	10µF	16V		1
C103	CD1-0-5500-0001V	Electrolytic	1µF	50V		1
C104	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C105	CC2-2-3500-ZG00C	Ceramic	0.022µF	50V	+80,-20%	1
C106	CD4-7-6160-0001V	Electrolytic	47µF	16V		1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description				Q'ty
C107	CC2-2-3500-ZG00C	Ceramic	0.022μF	50V	+80,-20%	1
C108	CC2-2-3500-ZG00C	Ceramic	0.022μF	50V	+80,-20%	1
	SEMICONDUCTORS					
D3	202-5-3210-12011	Zener Diode, GZA 12				1
D4	202-5-3210-12011	Zener Diode, GZA 12				1
D5	212-5-4390-13510	Diode, DS 135 D				1
D6	212-5-4390-13510	Diode, DS 135 D				1
D7	212-5-4390-13510	Diode, DS 135 D				1
D8	212-5-4390-13510	Diode, DS 135 D				1
D9	202-5-3160-00110	Diode, GMA 01				1
IC1	4-2069-73770	IC, BA 4410				1
IC2	4-2069-72962	IC, BA 4232 AL				1
IC3	4-2069-72800	IC, BA 1332				1
IC4	206-5-0793-16010	IC, LA 3160				1
IC5	207-5-1634-50710	IC, LA 4507				1
Q1	203-5-5000-53660	Transistor, 2SC 536				1
Q2	203-5-5000-53660	Transistor, 2SC 536				1
Q3	203-5-5000-53660	Transistor, 2SC 536				1
Q4	203-5-5000-53660	Transistor, 2SC 536				1
Q5	203-5-5000-53660	Transistor, 2SC 536				1
Q6	203-5-5000-53660	Transistor, 2SC 536				1
Q7	203-5-4570-73450	Transistor, 2SD 734				1
Q8	203-5-8570-33050	Transistor, 2SD 330				1
Q9	203-5-6850-40050	Transistor, 2SD 400				1
Q10	203-5-5000-53660	Transistor, 2SC 536				1
Q11	203-5-5000-53660	Transistor, 2SC 536				1
	RESISTORS					
R1	RD1-0-0161-JH000	Carbon	10Ω	1/6W	±5%	1
R2	RD5-6-1251-JM000	Carbon	560Ω	1/4W	±5%	1
R3	RD3-3-A161-JH000	Carbon	3.3Ω	1/6W	±5%	1
R4	RD3-3-4161-JH000	Carbon	330kΩ	1/6W	±5%	1
R5	RD3-3-4161-JH000	Carbon	330kΩ	1/6W	±5%	1
R6	RD3-3-4251-JM000	Carbon	330kΩ	1/4W	±5%	1
R7	RD4-7-3161-JH000	Carbon	47kΩ	1/6W	±5%	1
R8	RD3-3-2161-JH000	Carbon	3.3kΩ	1/6W	±5%	1
R9	RD3-3-1251-JS000	Carbon	330Ω	1/4W	±5%	1
R10	RD6-8-2161-JH000	Carbon	6.8kΩ	1/6W	±5%	1
R11	RD1-0-2161-JH000	Carbon	1kΩ	1/6W	±5%	1
R12	RD3-3-3161-JH000	Carbon	33kΩ	1/6W	±5%	1
R13	RD8-2-1161-JH000	Carbon	820Ω	1/6W	±5%	1
R14	RD1-0-2251-JM000	Carbon	1kΩ	1/4W	±5%	1
R15	RD3-3-2161-JH000	Carbon	3.3kΩ	1/6W	±5%	1
R16	RD3-3-2161-JH000	Carbon	3.3kΩ	1/6W	±5%	1
R17	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R18	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R19	RD1-0-2251-JM000	Carbon	1kΩ	1/4W	±5%	1
R20	RD1-0-2251-JM000	Carbon	1kΩ	1/4W	±5%	1
R21	RD3-3-1251-JS000	Carbon	330Ω	1/4W	±5%	1
R22	RD6-8-1251-JM000	Carbon	680Ω	1/4W	±5%	1
R23	RD1-8-5161-JH000	Carbon	1.8MΩ	1/6W	±5%	1
R24	RD1-8-5161-JH000	Carbon	1.8MΩ	1/6W	±5%	1
R25	RD2-2-3161-JH000	Carbon	22kΩ	1/6W	±5%	1
R26	RD2-2-3161-JH000	Carbon	22kΩ	1/6W	±5%	1
R27	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R28	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R29	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R30	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R31	RD1-8-3161-JH000	Carbon	18kΩ	1/6W	±5%	1
R32	RD1-8-3161-JH000	Carbon	18kΩ	1/6W	±5%	1
R33	RD1-0-2251-JM000	Carbon	1kΩ	1/4W	±5%	1
R34	RD1-0-2161-JH000	Carbon	1kΩ	1/6W	±5%	1
R35	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R36	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R37	RD1-0-2161-JH000	Carbon	1kΩ	1/6W	±5%	1
R38	RF2-2-0251-JH000	Fuse	22Ω	1/4W	±5%	1
R39	RD1-8-3161-JH000	Carbon	18kΩ	1/6W	±5%	1
R40	RD1-8-3161-JH000	Carbon	18kΩ	1/6W	±5%	1
R41	RD1-0-0161-JH000	Carbon	10Ω	1/6W	±5%	1
R42	RD1-0-0161-JH000	Carbon	10Ω	1/6W	±5%	1
R43	RD1-0-3161-JH000	Carbon	10kΩ	1/6W	±5%	1
R44	RD1-0-3161-JH000	Carbon	10kΩ	1/6W	±5%	1
R45	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R46	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R47	RD1-0-4251-JM000	Carbon	100kΩ	1/4W	±5%	1
R48	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R49	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R50	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R51	RD3-3-2161-JH000	Carbon	3.3kΩ	1/6W	±5%	1
R52	RD3-3-2161-JH000	Carbon	3.3kΩ	1/6W	±5%	1
R53	RD3-9-2161-JH000	Carbon	3.9kΩ	1/6W	±5%	1
R54	RD3-9-2161-JH000	Carbon	3.9kΩ	1/6W	±5%	1
R55	RD1-0-3161-JH000	Carbon	10kΩ	1/6W	±5%	1
R56	RD1-0-3161-JH000	Carbon	10kΩ	1/6W	±5%	1
R57	RD1-2-4161-JH000	Carbon	120kΩ	1/6W	±5%	1
R58	RD1-2-4161-JH000	Carbon	120kΩ	1/6W	±5%	1
R59	RD5-6-2161-JH000	Carbon	5.6kΩ	1/6W	±5%	1
R60	RD5-6-2251-JM000	Carbon	5.6kΩ	1/4W	±5%	1
R61	RD4-7-0161-JH000	Carbon	47Ω	1/6W	±5%	1
R62	RD4-7-0161-JH000	Carbon	47Ω	1/6W	±5%	1
R63	RD1-0-3251-JM000	Carbon	10kΩ	1/4W	±5%	1
R64	RD1-0-3251-JM000	Carbon	10kΩ	1/4W	±5%	1
R65	RD1-0-2251-JM000	Carbon	1kΩ	1/4W	±5%	1
R66	RD1-0-2251-JM000	Carbon	1kΩ	1/4W	±5%	1
R67	RD1-8-2161-JH000	Carbon	1.8kΩ	1/6W	±5%	1
R68	RD1-8-2161-JH000	Carbon	1.8kΩ	1/6W	±5%	1
R69	RD1-0-3251-JM000	Carbon	10kΩ	1/4W	±5%	1
R70	RD1-0-3251-JM000	Carbon	10kΩ	1/4W	±5%	1
R71	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R72	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R73	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R74	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R75	RD1-8-3161-JH000	Carbon	18kΩ	1/6W	±5%	1
R76	RD5-6-3161-JH000	Carbon	56kΩ	1/6W	±5%	1
R77	RD2-2-0161-JH000	Carbon	22Ω	1/6W	±5%	1
R79	RD6-8-1251-JM000	Carbon	680Ω	1/4W	±5%	1
R80	RD6-8-1251-JM000	Carbon	680Ω	1/4W	±5%	1
R81	RF1-0-0501-JH000	Fuse	10Ω	1/2W	±5%	1
R82	RD1-0-2251-JM000	Carbon	1kΩ	1/4W	±5%	1
R83	RF1-0-0501-JH000	Fuse	10Ω	1/2W	±5%	1
R84	RD1-0-4161-JH000	Carbon	100kΩ	1/6W	±5%	1
R85	RD2-2-4161-JH000	Carbon	220kΩ	1/6W	±5%	1
R86	RD1-0-3161-JH000	Carbon	10kΩ	1/6W	±5%	1
R87	RD1-0-3161-JH000	Carbon	10kΩ	1/6W	±5%	1
R88	RD3-3-4251-JM000	Carbon	330kΩ	1/4W	±5%	1
R89	RD3-3-4251-JM000	Carbon	330kΩ	1/4W	±5%	1
R90	RD6-8-1161-JH000	Carbon	680Ω	1/6W	±5%	1
R91	RD1-0-2251-JM000	Carbon	1kΩ	1/4W	±5%	1
R92	RD3-9-2161-JH000	Carbon	3.9kΩ	1/6W	±5%	1
	GRAPHIC EQUALIZER P.C.B. ASSY					
48	141-0-1939-10131	Graphic Equalizer P.C.B. Assy				1
	4-2262-22951	Graphic Equalizer P.C.B.				1
VR1	4-2229-75750	Slide Volume (W-250kΩx2, 100Hz)				1
VR2	4-2229-75750	Slide Volume (W-250kΩx2, 1kHz)				1
VR3	4-2229-75750	Slide Volume (W-250kΩx2, 10kHz)				1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
VR4	4-2229-75760	Slide Volume (W-200kΩ, Balance)	1
VR5	4-2229-75740	Volume (B-50kΩx2, Volume)	1
S1	4-2319-75331	Push Switch (Tape Selector)	1
	131-2-4208-46500	Spacer L.E.D. (Small)	1
	131-2-4208-46600	Spacer L.E.D. (Large)	1
	CAPACITORS		
C1	CC2-2-1500-KD00C	Ceramic 220pF 50V ±10%	1
C2	CC2-2-1500-KD00C	Ceramic 220pF 50V ±10%	1
C3	CD1-0-6160-0001V	Electrolytic 10μF 16V	1
C4	CD1-0-6160-0001V	Electrolytic 10μF 16V	1
C5	CC2-2-1500-KD00C	Ceramic 220pF 50V ±10%	1
C6	CC2-2-1500-KD00C	Ceramic 220pF 50V ±10%	1
C7	CD1-0-5500-0001V	Electrolytic 1μF 50V	1
C8	CD1-0-5500-0001V	Electrolytic 1μF 50V	1
C9	CD1-0-6160-0001V	Electrolytic 10μF 16V	1
C10	CD1-0-6160-0001V	Electrolytic 10μF 16V	1
C11	CM1-8-3500-K00SV	Mylar 0.018μF 50V ±10%	1
C12	CM1-8-3500-K00SV	Mylar 0.018μF 50V ±10%	1
C13	CD4-7-5250-0001V	Electrolytic 4.7μF 25V	1
C14	CD4-7-5250-0001V	Electrolytic 4.7μF 25V	1
C15	CM2-2-2500-K00SV	Mylar 0.0022μF 50V ±10%	1
C16	CM2-2-2500-K00SV	Mylar 0.0022μF 50V ±10%	1
C17	CD2-2-4500-0001V	Electrolytic 0.22μF 50V	1
C18	CD2-2-4500-0001V	Electrolytic 0.22μF 50V	1
C19	CM1-8-3500-K00SV	Mylar 0.018μF 50V ±10%	1
C20	CM1-8-3500-K00SV	Mylar 0.018μF 50V ±10%	1
C21	CC1-8-2500-KE00C	Ceramic 0.0018μF 50V ±10%	1
C22	CC1-8-2500-KE00C	Ceramic 0.0018μF 50V ±10%	1
C23	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80,-20%	1
C24	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80,-20%	1
C25	CD1-0-5500-0001V	Electrolytic 1μF 50V	1
C26	CD4-7-6160-0001V	Electrolytic 47μF 16V	1
C27	CD3-3-6160-0001V	Electrolytic 33μF 16V	1
C28	CD4-7-4500-0001V	Electrolytic 0.47μF 50V	1
C29	CD2-2-5500-0001V	Electrolytic 2.2μF 50V	1
C30	CD2-2-6160-0001V	Electrolytic 22μF 16V	1
C31	CD1-0-6160-0001V	Electrolytic 10μF 16V	1
C32	CD1-0-6160-0001V	Electrolytic 10μF 16V	1
C33	CC2-2-3500-ZG00C	Ceramic 0.022μF 50V +80,-20%	1
	SEMICONDUCTORS		
D1	4-2029-73910	L.E.D., SLP-173B (Power)	1
D2	4-2029-73910	L.E.D., SLP-173B (Input/Output Level)	1
D3	4-2029-73910	L.E.D., SLP-173B (Input/Output Level)	1
D4	4-2029-73910	L.E.D., SLP-173B (Input/Output Level)	1
D5	4-2029-73910	L.E.D., SLP-173B (Input/Output Level)	1
D6	4-2029-73910	L.E.D., SLP-173B (Record)	1
D7	4-2029-73910	L.E.D., SLP-173B (Stereo)	1
IC1	4-2069-74370	IC, TA 7366P	1
Q1	203-5-5000-53660	Transistor, 2SC 536	1
Q2	203-5-5000-53660	Transistor, 2SC 536	1
Q3	203-5-5000-53660	Transistor, 2SC 536	1
Q4	203-5-5000-53660	Transistor, 2SC 536	1
Q5	203-5-5000-53660	Transistor, 2SC 536	1
Q6	203-5-5000-53660	Transistor, 2SC 536	1
Q7	203-5-5000-53660	Transistor, 2SC 536	1
	RESISTORS		
R1	RD1-0-2161-JH000	Carbon 1kΩ 1/6W ±5%	1
R2	RD1-0-2161-JH000	Carbon 1kΩ 1/6W ±5%	1
R3	RD1-5-4161-JH000	Carbon 150kΩ 1/6W ±5%	1
R4	RD1-5-4161-JH000	Carbon 150kΩ 1/6W ±5%	1
R5	RD6-8-3161-JH000	Carbon 68kΩ 1/6W ±5%	1
R6	RD6-8-3161-JH000	Carbon 68kΩ 1/6W ±5%	1
R7	RD4-7-2161-JH000	Carbon 4.7kΩ 1/6W ±5%	1
R8	RD4-7-2161-JH000	Carbon 4.7kΩ 1/6W ±5%	1
R9	RD4-7-2161-JH000	Carbon 4.7kΩ 1/6W ±5%	1
R10	RD4-7-2161-JH000	Carbon 4.7kΩ 1/6W ±5%	1
R11	RD1-2-2161-JH000	Carbon 1.2kΩ 1/6W ±5%	1
R12	RD1-2-2161-JH000	Carbon 1.2kΩ 1/6W ±5%	1
R13	RD2-2-4161-JH000	Carbon 220kΩ 1/6W ±5%	1
R14	RD2-2-4161-JH000	Carbon 220kΩ 1/6W ±5%	1
R15	RD2-2-4161-JH000	Carbon 220kΩ 1/6W ±5%	1
R16	RD2-2-4161-JH000	Carbon 220kΩ 1/6W ±5%	1
R17	RD3-9-1161-JH000	Carbon 390Ω 1/6W ±5%	1
R18	RD3-9-1161-JH000	Carbon 390Ω 1/6W ±5%	1
R19	RD8-2-2161-JH000	Carbon 8.2kΩ 1/6W ±5%	1
R20	RD8-2-2161-JH000	Carbon 8.2kΩ 1/6W ±5%	1
R21	RD1-5-2161-JH000	Carbon 1.5kΩ 1/6W ±5%	1
R22	RD1-5-2161-JH000	Carbon 1.5kΩ 1/6W ±5%	1
R23	RD8-2-3161-JH000	Carbon 82kΩ 1/6W ±5%	1
R24	RD8-2-3161-JH000	Carbon 82kΩ 1/6W ±5%	1
R25	RD8-2-3161-JH000	Carbon 82kΩ 1/6W ±5%	1
R26	RD8-2-3161-JH000	Carbon 82kΩ 1/6W ±5%	1
R27	RD3-9-1161-JH000	Carbon 390Ω 1/6W ±5%	1
R28	RD3-9-1161-JH000	Carbon 390Ω 1/6W ±5%	1
R29	RD8-2-2161-JH000	Carbon 8.2kΩ 1/6W ±5%	1
R30	RD8-2-2161-JH000	Carbon 8.2kΩ 1/6W ±5%	1
R31	RD1-5-2251-JM000	Carbon 1.5kΩ 1/4W ±5%	1
R32	RD1-5-2161-JH000	Carbon 1.5kΩ 1/6W ±5%	1
R33	RD4-7-2251-JM000	Carbon 4.7kΩ 1/4W ±5%	1
R34	RD4-7-2161-JH000	Carbon 4.7kΩ 1/6W ±5%	1
R35	RD4-7-2251-JM000	Carbon 4.7kΩ 1/4W ±5%	1
R36	RD4-7-2161-JH000	Carbon 4.7kΩ 1/6W ±5%	1
R37	RD1-0-2161-JH000	Carbon 1kΩ 1/6W ±5%	1
R38	RD1-0-2161-JH000	Carbon 1kΩ 1/6W ±5%	1
R39	RD1-5-3161-JH000	Carbon 15kΩ 1/6W ±5%	1
R40	RD1-5-3161-JH000	Carbon 15kΩ 1/6W ±5%	1
R41	RD3-3-1251-JM000	Carbon 330Ω 1/4W ±5%	1
R42	RD1-0-3251-JM000	Carbon 10kΩ 1/4W ±5%	1
R43	RD3-3-1251-JS000	Carbon 330Ω 1/4W ±5%	1
R44	RD1-5-2251-JM000	Carbon 1.5kΩ 1/4W ±5%	1
R45	RD1-5-2251-JM000	Carbon 1.5kΩ 1/4W ±5%	1
R46	RD1-8-1251-JM000	Carbon 180Ω 1/4W ±5%	1
R47	RD1-2-4251-JM000	Carbon 120kΩ 1/4W ±5%	1
R48	RD1-0-0251-JM000	Carbon 10Ω 1/4W ±5%	1
R50	RH1-8-1501-JZ000	Metal 180Ω 1/2W ±5%	1
R51	RD1-2-4161-JH000	Carbon 120kΩ 1/6W ±5%	1
R52	RD3-3-2161-JH000	Carbon 3.3kΩ 1/6W ±5%	1
	POWER SWITCH P.C.B. ASSY		
49	141-0-1939-10143	Power Switch P.C.B. Assy	1
	4-2262-22961	Power Switch P.C.B.	1
S1	⚠ 4-2312-05710	Switch Push Power	1
	4-2372-00830	EC Terminal 1P	2
	111-2-6220-11100	Wire Wrap Terminal	2
	131-2-6114-00210	Cover Safety	1
	CAPACITOR		
C1	⚠ 4-2239-70970	Capacitor 0.01μF 400V +100,-0%	1
	HEADPHONE JACK P.C.B. ASSY		
50	141-0-1939-10151	Headphone Jack P.C.B. Assy	1
	4-2262-22971	Headphone Jack P.C.B.	1
	4-2359-78380	Jack 7P (Headphones)	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
	RESISTORS		
R1	RD1-0-1251-JM000	Carbon 100Ω 1/4W ±5%	1
R2	RD1-0-1251-JM000	Carbon 100Ω 1/4W ±5%	1
	BEAT SWITCH P.C.B. ASSY		
51	141-0-1939-10161	Beat Switch P.C.B. Assy	1
	4-2262-22981	Beat Switch P.C.B.	1
S1	4-2319-78130	Switch Slide 2-2 (Beat Cancel)	1
	CAPACITOR		
C1	CC6-8-1500-KD00C	Ceramic 680pF 50V ±10%	1
	SPEAKER TERMINAL P.C.B. ASSY		
52	141-0-1939-10171	Speaker Terminal P.C.B. Assy	1
	4-2262-22991	Speaker Terminal P.C.B.	1
	4-2359-78460	Pin Jack 2P (Speakers)	1
	CAPACITOR		
C1	CM1-5-4500-M00SV	Mylar 0.15μF 50V ±20%	1
	ANTENNA TERMINAL P.C.B. ASSY		
53	141-0-1939-10191	Antenna Terminal P.C.B. Assy	1
	4-2262-23001	Antenna Terminal P.C.B.	1
	4-2379-71010	Terminal 2P (Antenna)	1

NOTES:

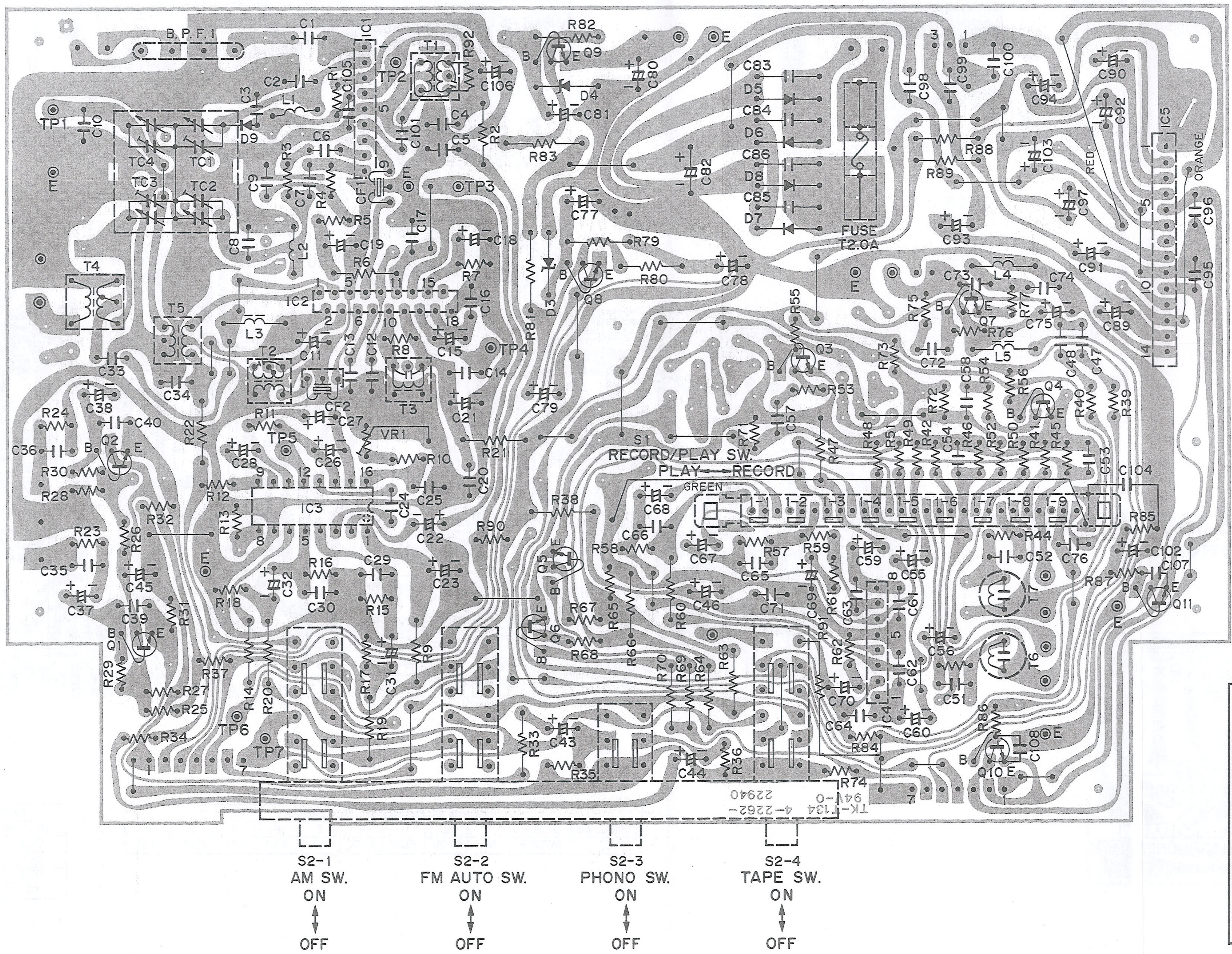
1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

RF/AUDIO PRINTED CIRCUIT BOARD

(BOTTOM VIEW)

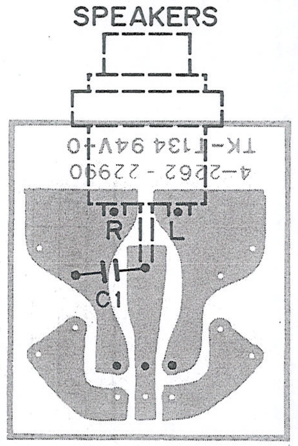

B.P.F.1
TP1
TP2
TP3
TP4
TP5
TP6
TP7
IC1
IC2
IC3
IC4
IC5
T1
T2
T3
T4
T5
T6
T7
TC1
TC2
TC3
TC4
CF1
CF2
VR1
FUSE
T2.0A
S1
RECORD/PLAY SW.
PLAY ← → RECORD
GREEN
RED
ORANGE
TK-134 4-2262-
94V-0 22940
S2-1
AM SW.
ON
OFF
S2-2
FM AUTO SW.
ON
OFF
S2-3
PHONO SW.
ON
OFF
S2-4
TAPE SW.
ON
OFF

TRANSISTOR DC VOLTAGES				
SYMBOL No.	DEVICE	B	C	E
Q1,2	2SC536	8.3V	10.5V	7.7V
Q3,4	2SC536	0V	0.3V	0V
Q5,6	2SC536	0.7V	0V	0V
Q7	2SD734	0.1V	0.1V	0V
Q8	2SD330	12.0V	20.5V	11.5V
Q9	2SD400	12.0V	20.5V	11.5V
Q10,11	2SC536	0V	0V	0V

IC PIN NUMBERS DC VOLTAGES																			
SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IC1	BA4410(FM)	1.1V	5.8V	5.9V	5.9V	0V	5.9V	4.9V	5.8V	1.8V									
IC1	BA4410(AM)	0.8V	2.0V	2.0V	2.0V	0V	2.0V	1.1V	2.0V	1.9V									
IC2	BA4232(FM)	0V	0V	0V	0V	0V	7.9V	7.9V	7.9V	7.9V	8.9V	1.9V	8.9V	0V	7.4V	0.1V	1.3V	1.3V	0V
IC2	BA4232(AM)	10.4V	10.4V	10.4V	10.4V	0V	8.9V	8.9V	8.9V	8.9V	8.9V	1.9V	8.9V	0V	8.3V	0.1V	1.3V	1.3V	0V
IC3	BA1332(FM)	8.1V	1.6V	1.7V	1.7V	1.7V	10.1V	0V	0.4V	0V	1.7V	1.7V	0.9V	1.7V	1.7V	1.7V	0.8V		
IC3	BA1332(AM)	8.1V	1.6V	1.7V	1.7V	1.7V	1.2V	0V	0.4V	2.3V	1.7V	1.7V	1.8V	1.7V	1.7V	1.7V	0.1V		
IC4	LA3160	1.3V	0.8V	4.4V	11.4V	0V	4.4V	0.8V	1.3V										
IC5	LA4507	0V	19.6V	10.3V	1.2V	0V	1.2V	0.5V	20.5V	0V	0V	1.2V	21.0V	10.4V	19.7V				

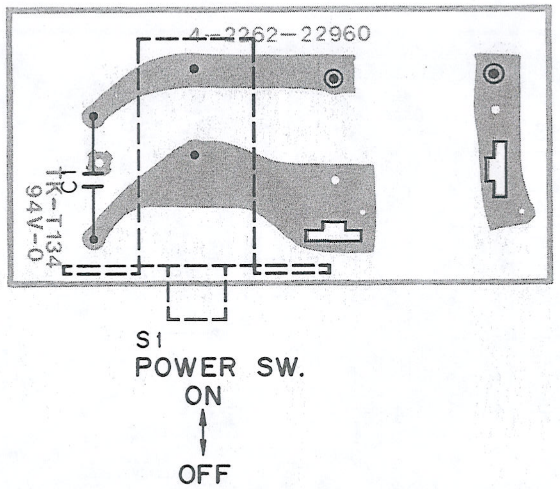
SPEAKER TERMINAL P.C.BOARD

(BOTTOM VIEW)


SPEAKERS
4-2262-22990
TK-T134 94V-0
R
L
C1

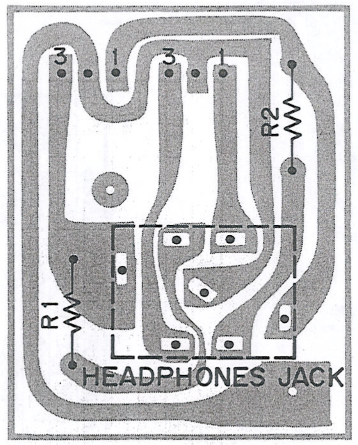
POWER SW. P.C.BOARD

(BOTTOM VIEW)


4-2262-22960
C1
TK-T134 94V-0
S1
POWER SW.
ON
OFF

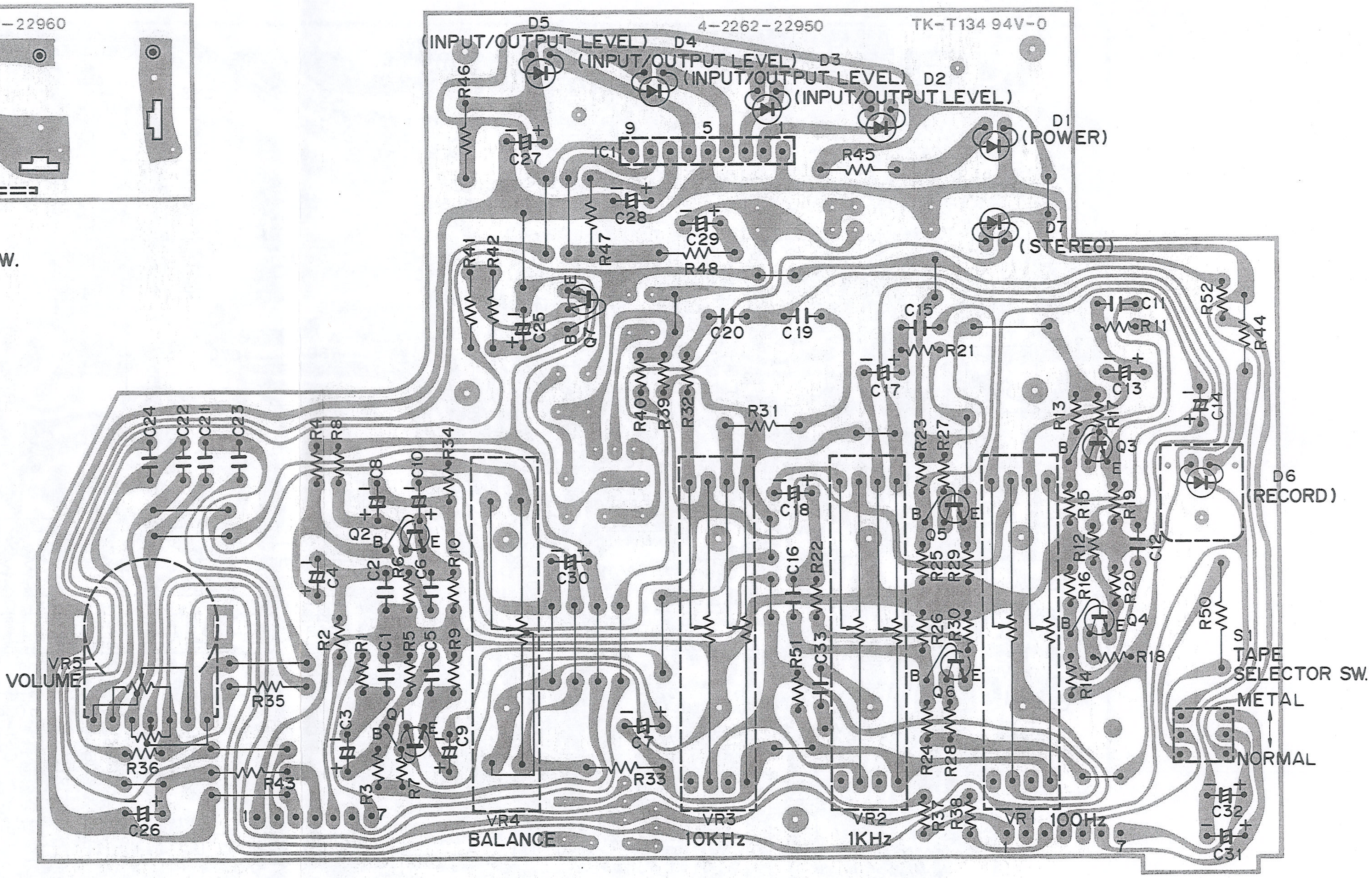
HEADPHONE JACK P.C.BOARD

(BOTTOM VIEW)


3
1
3
1
R2
R1
HEADPHONES JACK

GRAPHIC EQUALIZER P.C.BOARD

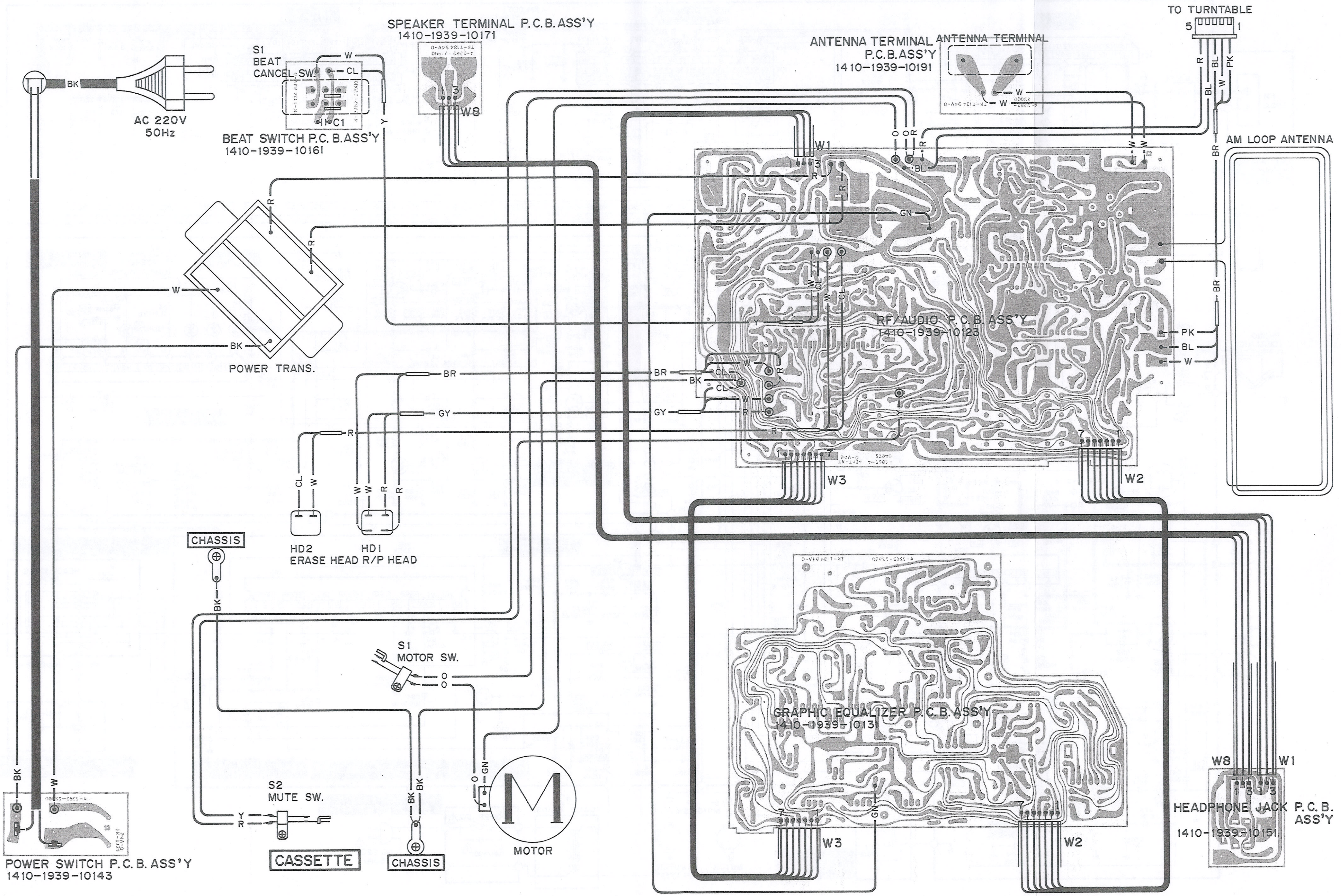
(BOTTOM VIEW)


D5
(INPUT/OUTPUT LEVEL)
D4
(INPUT/OUTPUT LEVEL)
D3
(INPUT/OUTPUT LEVEL)
D2
(INPUT/OUTPUT LEVEL)
4-2262-22950
TK-T134 94V-0
D1
(POWER)
D7
(STEREO)
D6
(RECORD)
IC1
9
5
1
R46
C27
R45
C28
C29
R48
R41
R42
R47
C25
Q7
B
E
C20
C19
C15
R21
C11
R11
R52
R44
C17
C13
C14
R40
R39
R32
R31
R13
R17
Q3
C24
C22
C21
C23
R4
R8
C8
C10
R34
C18
R23
R27
Q5
R15
R19
Q2
R6
C6
R10
C4
C2
C30
C16
R22
R25
R29
R12
R16
R20
C12
Q4
R50
S1
TAPE SELECTOR SW.
METAL
NORMAL
R18
VR5
VOLUME
R2
R1
C1
R5
C5
R9
R35
R51
C33
R26
R30
Q6
R14
C3
Q1
C9
C7
R36
R43
R3
R7
R33
R24
R28
R37
R38
C26
C32
C31
VR4
BALANCE
VR3
10KHz
VR2
1KHz
VR1
100Hz
7

IC PIN NUMBERS DC VOLTAGES										
SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9
IC1	TA7366P	0V	10.2V	10.5V	10.5V	0V	9.5V	1.7V	0.3V	11.5V

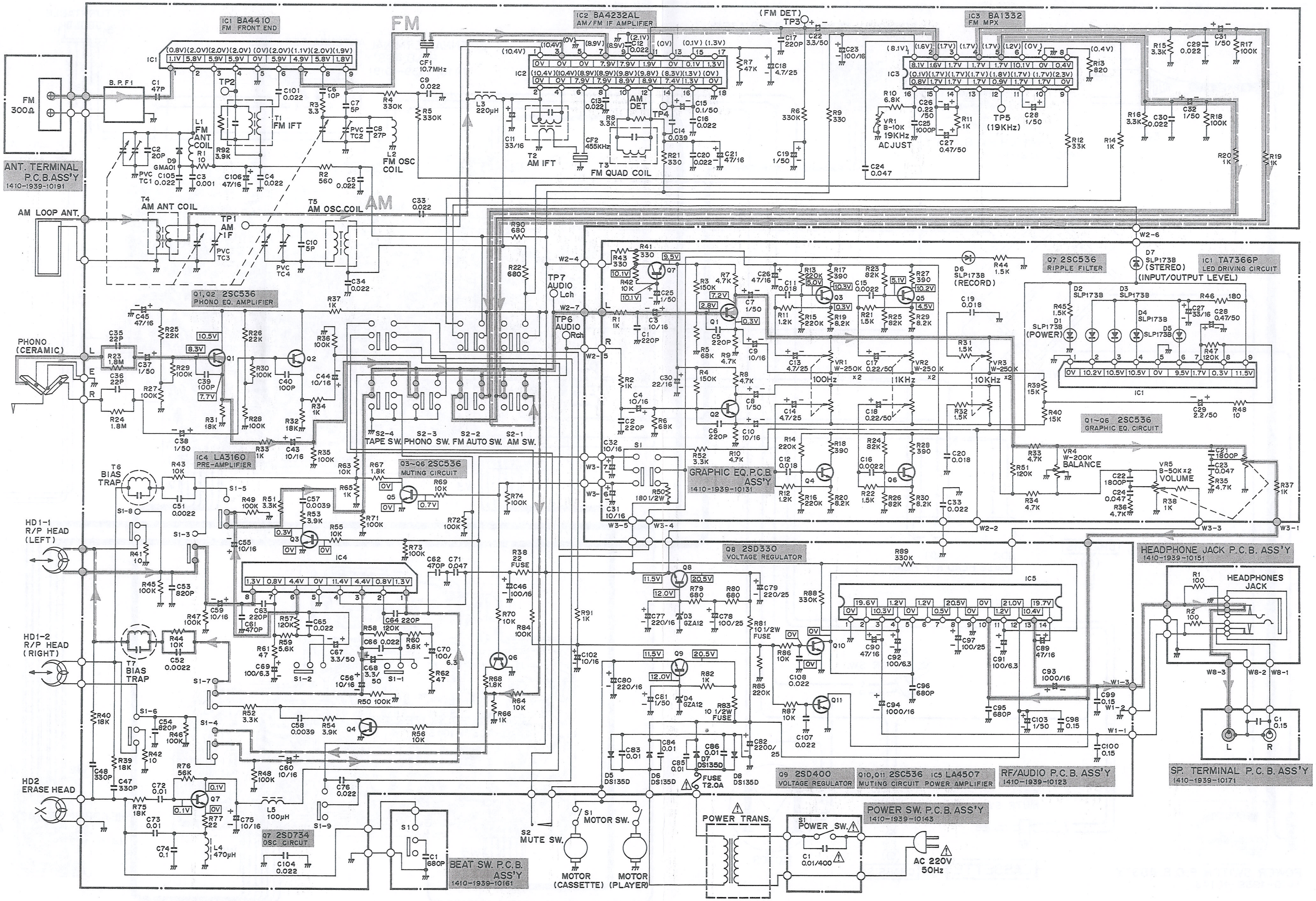
TRANSISTOR DC VOLTAGES				
SYMBOL No.	DEVICE	B	C	E
Q1,2	2SC536	2.8V	7.2V	0.3V
Q3,4	2SC536	5.0V	10.3V	0.3V
Q5,6	2SC536	5.1V	10.2V	4.5V
Q7	2SC536	10.1V	10.1V	9.5V

POINT TO POINT WIRING DIAGRAM



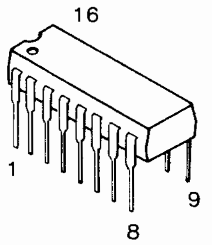
SPEAKER TERMINAL P.C.B.ASS'Y
1410-1939-10171
S1
BEAT
CANCEL SW.
CL
W
Y
C1
W8
BEAT SWITCH P.C.B.ASS'Y
1410-1939-10161
BK
AC 220V
50Hz
ANTENNA TERMINAL
P.C.B.ASS'Y
1410-1939-10191
ANTENNA TERMINAL
TO TURNTABLE
5
1
R
BL
W
PK
AM LOOP ANTENNA
W1
GN
BL
RF/AUDIO P.C.B.ASS'Y
1410-1939-10123
POWER TRANS.
BR
GY
BK
CL
R
PK
W2
W3
CL
W
HD2
ERASE HEAD
HD1
R/P HEAD
CHASSIS
S1
MOTOR SW.
GRAPHIC EQUALIZER P.C.B.ASS'Y
1410-1939-10131
W8
W1
HEADPHONE JACK P.C.B.
ASS'Y
1410-1939-10151
S2
MUTE SW.
Y
R
GN
O
MOTOR
CASSETTE
CHASSIS
POWER SWITCH P.C.B.ASS'Y
1410-1939-10143

SCHEMATIC DIAGRAM

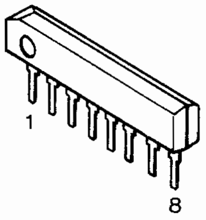

IC1 BA4410 FM FRONT END
IC2 BA4232AL AM/FM IF AMPLIFIER
IC3 BA1332 FM MPX
FM
AM
FM 300Ω
B.P.F1
ANT. TERMINAL P.C.B.ASS'Y 1410-1939-10191
AM LOOP ANT.
T4 AM ANT COIL
T5 AM OSC COIL
L1 FM ANT COIL
T1 FM IFT
L2 FM OSC COIL
CF1 10.7MHz
T2 AM IFT
T3 FM QUAD COIL
CF2 455KHz
AM DET
(FM DET) TP3
TP1 AM IF
TP2
TP4
TP5 (19KHz)
VR1 B-10K 19KHz ADJUST
Q1,Q2 2SC536 PHONO EQ. AMPLIFIER
PHONO (CERAMIC)
TP7 AUDIO Lch
TP6 AUDIO Rch
S2-4 TAPE SW.
S2-3 PHONO SW.
S2-2 FM AUTO SW.
S2-1 AM SW.
IC4 LA3160 PRE-AMPLIFIER
Q3~Q6 2SC536 MUTING CIRCUIT
T6 BIAS TRAP
T7 BIAS TRAP
HD1-1 R/P HEAD (LEFT)
HD1-2 R/P HEAD (RIGHT)
HD2 ERASE HEAD
Q7 2SD734 OSC CIRCUIT
BEAT SW. P.C.B. ASS'Y 1410-1939-10161
Q7 2SC536 RIPPLE FILTER
IC1 TA7366P LED DRIVING CIRCUIT
D7 SLP173B (STEREO)
D6 SLP173B (RECORD)
D1 SLP173B (POWER)
(INPUT/OUTPUT LEVEL)
100Hz
1KHz
10KHz
VR4 W-200K BALANCE
VR5 B-50K×2 VOLUME
Q1~Q6 2SC536 GRAPHIC EQ. CIRCUIT
GRAPHIC EQ.P.C.B. ASS'Y 1410-1939-10131
Q8 2SD330 VOLTAGE REGULATOR
Q9 2SD400 VOLTAGE REGULATOR
Q10,Q11 2SC536 MUTING CIRCUIT
IC5 LA4507 POWER AMPLIFIER
RF/AUDIO P.C.B. ASS'Y 1410-1939-10123
HEADPHONE JACK P.C.B. ASS'Y 1410-1939-10151
HEADPHONES JACK
SP. TERMINAL P.C.B. ASS'Y 1410-1939-10171
S2 MUTE SW.
S1 MOTOR SW.
MOTOR (CASSETTE)
MOTOR (PLAYER)
POWER TRANS.
POWER SW. P.C.B. ASS'Y 1410-1939-10143
S1 POWER SW.
AC 220V 50Hz
FUSE T2.0A

SEMICONDUCTOR LEAD IDENTIFICATION

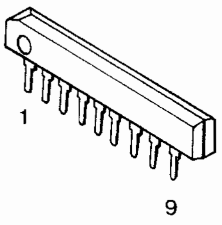
INTEGRATED CIRCUITS



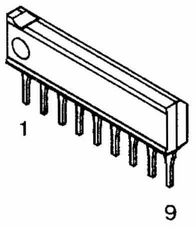
- BA 1332



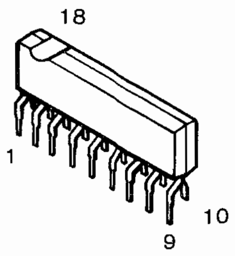
- LA 3160



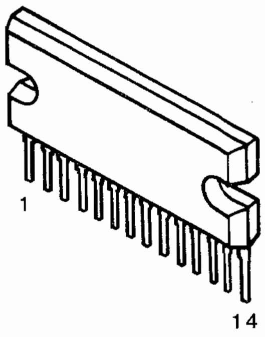
- TA 7366 P



- BA 4410

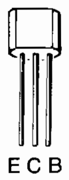


- BA 4232 AL

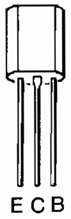


- LA 4507

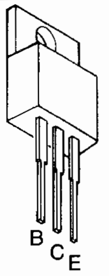
TRANSISTORS



- 2SC 536
- 2SD 734



- 2SD 400



- 2SD 330

SCHEMATIC DIAGRAM SWITCH POSITIONS

No.	Name	Position
	RF/AUDIO P.C.B. ASSY	
S1	RECORD PLAY Switch	PLAY
S2-1	AM Switch	OFF
S2-2	FM AUTO Switch	OFF
S2-3	PHONO Switch	OFF
S2-4	TAPE Switch	OFF
	GRAPHIC EQ. P.C.B. ASSY	
S1	TAPE SELECTOR Switch	NORMAL

No.	Name	Position
	POWER SWITCH P.C.B. ASSY	
S1	POWER Switch	OFF
	BEAT CANCEL SWITCH P.C.B. ASSY	
S1	BEAT CANCEL Switch	SP SIDE
	CASSETTE MECHANISM	
S1	MOTOR Switch	OFF
S2	MUTE Switch	OFF

NOTES:

1. All resistors values are indicated in "ohm" ($K=10^3$, $M=10^6$).
2. All capacitors values are indicated in "μF" ($P=10^{-12}$).
3. All voltages indicated on the schematics are measured under the following conditions.
   a. Use a V.T.V.M.
   b. All voltages ±10 % with respect to chassis ground.
   c. No signals at input terminals.
   d. AC input at 220 volts 50 Hz
4. This is a basic schematic diagram.

Because Fisher products are subject to continuous improvement, Fisher Corporation reserves the right to make any changes or modifications without notice.

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with ⚠, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual.
Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

FISHER

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Sie sparen so wertvolle Zeit. Vielen Dank.

August/'85/2,000 **Printed in Japan**